PUBLIC HEALTH DEPT.
REPORTS COLLECTION COPY

Administrative County of Middlesex.

ANNUAL REPORT

OF THE

COUNTY MEDICAL OFFICER OF HEALTH

FOR THE

YEAR 1933.

LONDON:
HARRISON AND SONS, LTD., ST. MARTIN'S LANE, W.C.2.
Printers in Ordinary to His Majesty.

[illegible]

P.H. 103/1934

The County Council of Middlesex

Administrative County of Middlesex.

ANNUAL REPORT

OF THE

COUNTY MEDICAL OFFICER OF HEALTH

FOR THE

YEAR 1933.

LONDON:
HARRISON AND SONS, LTD., ST. MARTIN'S LANE, W.C.2,
Printers in Ordinary to His Majesty.

1934.

TO THE CHAIRMAN, ALDERMEN AND MEMBERS OF THE COUNTY COUNCIL OF MIDDLESEX.

Sir, My Lord, Ladies and Gentlemen,

I have the honour to present for your information my annual report for the year ended the 31st December, 1933.

This is the fourth annual report to be prepared since the Local Government Act, 1929, transferred to the County Council the powers and duties previously exercised and carried out by the late Boards of Guardians, and, as in the case of its three predecessors, account of these transferred functions occupies a very substantial part of the report. No apology is needed for this fact, as the magnitude of the medical services, which now have to be administered by the County Council, and the keen interest which members of the Public Health and Public Assistance Committee of the Council display in the management and development of these transferred services, place a definite obligation upon me to endeavour to present, for the information of the Council as a whole, an outline of the work which has been done, and the progress which has been effected, during the course of the year.

The vital statistics for the year, with one exception, call for little comment. The birth-rate continues to fall, the general death-rate is stationary, and the rate of infant mortality shows a small reduction. The rate of maternal mortality, on the other hand, is very far from satisfactory. It will be noted that it has risen from 3·85 deaths per 1,000 births in 1932 to 4·77 deaths per 1,000 births in 1933. Some suggestions as to possible factors which may have contributed to this unsatisfactory position will be found on pages 9 to 13 of this report, but it must be admitted that the increase in the rate of maternal deaths is a regrettable feature of the year's statistics.

The occurrence of a widespread epidemic of influenza in the early part of the year caused some anxiety in view of the limited accommodation available in the Council's hospitals, but, by the aid of the temporary expedients referred to in the section of the report dealing with the institutional treatment of the sick, this emergency was met, albeit at the cost of very considerable and undesirable overcrowding.

The well arranged new block for children at the Central Middlesex County Hospital opened by Sir George Newman, K.C.B., M.D., F.R.C.P., Chief Medical Officer of the Ministry of Health, on 30th June merits special attention. As will be seen from the information given on pages 16 and 17 of this report, the design of the building is original and constitutes a definite advance upon the conventional plan of a children's department.

It is very gratifying to be able to record once again the continued assistance and support I have received from the Chairman and members of the Public Health and Public Assistance Committee of the Council; the interest which is shown, not only in questions of principle but also in matters of detail, is a constant stimulus and encouragement to the officers of the Council.

May I conclude by expressing my appreciation of the loyalty and devotion to duty of the members of my staff, and especially would I refer to my deputy Dr. H. M. C. Macaulay, who has had a substantial share in the preparation of this report.

I have the honour to be,
Your obedient Servant,

J. Tate

County Medical Officer.

Public Health Department,
10, Great George Street,
Westminster, S.W.1.

July, 1934.

Staff.

WHOLE-TIME OFFICERS.

County Medical Officer of Health and School Medical Officer :

J. Tate, M.R.C.S., L.R.C.P., D.P.H.

Deputy County Medical Officer of Health and Deputy School Medical Officer :

H. M. C. Macaulay, M.D., B.S., B.Sc., D.P.H.

Assistant County Medical Officers of Health :

A. C. T. Perkins, M.D., B.S., D.P.H.
Miss M. Back, M.D., B.S., D.P.H.
(commenced duty 1st March, 1933.)

Tuberculosis Medical Officers :

F. R. B. Atkinson, M.D., C.M.
O. Bruce, M.R.C.S., L.R.C.P.
S. Trevor Davies, M.R.C.S., L.R.C.P.
J. R. B. Dobson, M.B., B.S., B.Sc.
H. Evans, M.D., Ch.B., D.P.H.
W. S. Forbes, M.B., Ch.B., D.P.H.

Assistant Medical Officers :

(*Maternity and Child Welfare and School Medical Inspection and Treatment.*)

Mrs. A. M. Burn, M.B., Ch.B., D.P.H.
Miss J. R. Campbell, M.B., Ch.B., D.P.H.
Miss K. M. Cellan-Jones, M.D., B.S., B.Hy., D.P.H.
Miss K. Glyn-Jones, M.R.C.S., L.R.C.P.
W. R. H. Heddy, M.R.C.S., L.R.C.P., D.P.H., Barrister-at-Law.
H. W. Moir, M.B., Ch.B., D.P.H.
Lieut.-Col. H. L. W. Norrington, D.S.O., M.R.C.S., L.R.C.P.
G. J. Roberts, M.D., Ch.B., B.Sc., D.P.H.
(commenced duty 1st December, 1933).
Miss M. K. Ruddy, M.D., B.S., B.Sc.
Mrs. R. H. Shelley, M.B., B.S.
Miss G. Wilson, M.A., M.B., Ch.B., D.P.H.

Veterinary Inspector :

(*Milk and Dairies* (*Consolidation*) *Act*, 1915, *and Milk and Dairies Order*, 1926.)

(Vacant).

Senior Dental Officer :

(*Maternity and Child Welfare, County Sanatoria, School Dental Treatment.*)

S. J. Smith, L.D.S.

Assistant Dental Officers :

(*Maternity and Child Welfare and School Dental Treatment.*)

J. V. Bingay, L.D.S.
R. E. Cook, L.D.S.
Miss C. M. Henderson, L.D.S.
(commenced duty, 30th January, 1933).
R. V. Kingham, L.D.S.
Mrs. C. S. Leiper, L.D.S.
Mrs. I. M. Pritchard, L.D.S.

Inspector of Midwives :

Miss C. A. M. Coleman.

Tuberculosis Dispensary Nurses	13
Health Visitors and School Nurses	28
Dental Nurses	7
Midwives	2

PART-TIME OFFICERS.

Consulting Obstetric Physicians :

(1) *Central Ante-natal Clinic :*

J. S. Fairbairn, M.A., F.R.C.S., F.R.C.P.

(2) *Puerperal Fever, &c., Regulations,* 1926 *:*

J. M. Wyatt, M.B., B.S., F.R.C.S.

Ophthalmic Surgeons :

(*Maternity and Child Welfare and School Medical Services.*)

E. F. King, M.B., Ch.B., F.R.C.S., D.O.M.S.
C. D. Shapland, M.B., B.S., M.R.C.P., F.R.C.S.

Assistant Medical Officers :

(*Maternity and Child Welfare.*)

L. W. Hignett, M.B., C.M., D.P.H.
J. W. Poole, M.B., B.S.

HOSPITALS, INSTITUTIONS AND SANATORIA.

North Middlesex County Hospital.

Medical Superintendent :

Ivor Lewis, M.D., M.S., D.P.H. (commenced duty April 1st, 1933).

Deputy Medical Superintendent :

A. W. Gregorson, M.D., Ch.B., F.R.F.P.S.

Physician :

C. A. Birch, M.D., M.R.C.P., D.P.H.

Surgeon :

R. L. Galloway, M.B., Ch.B., F.R.C.S. (Edin.).

Assistant Medical Officers :

K. A. Hudson, M.B., Ch.M.
H. O. Blauvelt, M.D., C.M., F.R.C.S.
P. J. Nagle, M.B., B.Ch., B.A.O.
A. R. K. Burne, M.B., Ch.M., F.R.C.S. (Edin.).
M. Coke, M.R.C.S., L.R.C.P.
A. Burkhardt, M.B., B.S.
E. B. Jackson, M.B., B.S., M.R.C.P.
Miss E. A. Pennycuick, M.B., Ch.B.

Matron :

Miss L. F. Dykes.

West Middlesex County Hospital.

Medical Superintendent :

J. B. Cook, M.D., Ch.B., D.P.H.

Deputy Medical Superintendent :

Miss M. W. Warren, M.R.C.S., L.R.C.P.

Assistant Medical Officers :

A. W. Badenoch, M.A., M.D., Ch.B.
M. Deane, M.D.,, B.S., M.R.C.P.
J. A. McLean, M.D., B.S., M.R.C.P.
Miss I. M. Titcomb, M.A., B.M., B.Ch.
G. Stephen, M.B., Ch.B.

Matron :

Miss E. Huggins.

Central Middlesex County Hospital.

Medical Superintendent :

W. E. Turner, M.R.C.S., L.R.C.P.

Deputy Medical Superintendent :

T. G. I. James, M.D., M.Ch., B.Sc., F.R.C.S. (Eng. and Edin.).

Assistant Medical Officers :

N. M. Matheson, M.B., Ch.B., F.R.C.S., M.R.C.P.
A. D. Abdullah, M.B., Ch.M., M.R.C.P.
J. S. MacVine, M.B., B.S.
E. H. Capel, M.D., B.S., M.R.C.P.
J. Sakula, M.B., B.S.

Matron :

Miss B. Gebhard.

REDHILL COUNTY HOSPITAL.

Medical Superintendent :

J. N. Deacon, *M.C.*, M.B., B.S.

Deputy Medical Superintendent :

W. A. Steel, M.D., Ch.B., M.R.C.P.

Assistant Medical Officers :

E. B. Brooke, M.A., M.B., B.Chir., M.R.C.P., D.P.H.

J. H. Attwood, M.B., B.S.

D. B. Craig, L.R.C.P., F.R.C.S. (Edin.).

Surgeon (part-time) :

R. Trevor Jones, M.B., B.S., B.Sc., F.R.C.S.

Matron :

Miss E. R. Wheeldon.

HILLINGDON COUNTY HOSPITAL.

Medical Superintendent :

R. Rutherford, F.R.C.S.

Assistant Medical Officers :

L. Fatti, M.B., B.S., F.R.C.S.

J. H. Follows, M.D., M.R.C.P.

Miss J. Morgan, M.D., B.S., B.Sc.

Matron :

Miss E. S. Laing.

STAINES INSTITUTION.

Medical Officer (part-time) :

L. R. Pickett, M.R.C.S., L.R.C.P.

EDGBURY CONVALESCENT HOME, WOBURN SANDS.

Medical Officer (part-time) :

J. N. Alexander, M.R.C.S., L.R.C.P.

Matron :

Miss M. A. Bishop.

EDMONTON HOUSE, ENFIELD HOUSE, CHASE FARM SCHOOLS, REDHILL INSTITUTION, WARKWORTH HOUSE, HILLINGDON INSTITUTION, WHITE WEBBS HOME.

The medical care of patients and inmates in these institutions is provided by the medical staffs of the hospitals set out above.

COUNTY SANATORIUM, HAREFIELD.

Medical Superintendent :

J. R. McGregor, M.B., Ch.B., D.P.H.

Deputy Medical Superintendent :

F. A. H. Simmonds, M.A., M.B., B.Chir., D.P.H.

Assistant Medical Officers :

K. R. Stokes, M.R.C.S., L.R.C.P.

D. G. M. Edwards, M.B., B.S., D.P.H.

Matron :

Miss C. Woodward.

COUNTY SANATORIUM, CLARE HALL, SOUTH MIMMS.

Medical Superintendent :

A. C. Tabois, M.D.

Deputy Medical Superintendent :

J. T. N. Roe, M.D., Ch.B., D.P.H.

Assistant Medical Officer :

J. O. Williams, M.R.C.S., L.R.C.P.

Matron :

Miss M. Brown.

PUBLIC VACCINATORS AND DISTRICT MEDICAL OFFICERS (PUBLIC ASSISTANCE).

District.	Name and Qualifications.
Northern Area—	
Edmonton (North)	A. E. Tughan, L.R.C.S., L.R.C.P., L.R.F.P. & S.
Edmonton (South)	J. Shaw, M.A., M.B., Ch.B.
Enfield (Cockfosters)	H. C. Woodcock, M.R.C.S., L.R.C.P.
Enfield (Cooper's Lane)	B. M. Toop, M.R.C.S., L.R.C.P.
Enfield Town	
Enfield Highway and Ponders End	J. E. Hill, M.B., B.Ch.
Tottenham (High Cross)	Burton Yule, M.B., Ch.B., D.P.H.
Tottenham (Lower E.)	J. Devine, L.R.C.P. & S.
Tottenham (Lower W.)	A. Wilson, M.B., Ch.B.
Tottenham (West Green)	Miss Fanny Cattle, B.Sc., M.R.C.S., L.R.C.P.
North-Eastern Area—	
Finchley (North)	S. R. Gleed, M.R.C.S., L.R.C.P.
Finchley (South)	T. W. Hicks, M.D.
Friern Barnet (North)	G. P. Evans, M.R.C.S., L.R.C.P.
Friern Barnet (South)	L. Bensted, M.R.C.S., L.R.C.P. (D.M.O. only). G. P. Evans, M.R.C.S., L.R.C.P. (P.V. only).
Highgate	E. F. Buckler, M.B., Ch.B.
Hornsey (Harringay)	T. E. A. Pearman, M.R.C.S., L.R.C.P.
Southgate	H. C. Woodcock, M.R.C.S., L.R.C.P.
South Mimms	W. E. Hayes, M.B., B.Ch.
Winchmore Hill	C. H. Kerr, M.D., B.Ch.
Wood Green	F. James, M.R.C.S., L.R.C.P.
Central Area—	
Burnt Oak and Watling Estate	Miss Margaret I. Little, M.R.C.S., L.R.C.P.
Child's Hill	R. W. Baron, M.B., Ch.B.
Edgware, Little Stanmore and Lower Hale	D. M. C. Church, M.B., Ch.B.
Golders Green and Hampstead Garden Suburb.	L., Myers, M.B., B.S.
Great Stanmore and Harrow Weald	R. L. Romer, M.R.C.S., L.R.C.P.
Harrow-on-the-Hill	C. M. Pennefather, M.D., B.S.
Hendon Central and Hendon West (part)	W. A. L. Dunlop, M.B., B.Ch., B.A.O.
Kingsbury	Miss Mary H. Routledge, M.B., Ch.B., D.P.H.
Mill Hill (part)	A. H. Morley, M.B., B.S.
Pinner	G. D. B. Levick, M.R.C.S., L.R.C.P.
Wealdstone	Miss Lucy Parker, M.D., B.S., M.R.C.P.
Wembley	H. E. Dyson, M.D., B.S.
Willesden Area—	
Harlesden	C. F. T. Scott, M.B., Ch.B. (P.V. only.)
Kilburn	P. Smith, M.D., B.S., D.P.H. (P.V. only.)
Willesden (No. 1)	J. A. Smith, M.D. (D.M.O. only.)
Willesden (No. 2)	C. H. Auty, M.R.C.S., L.R.C.P. (D.M.O. only.)
Willesden (No. 3)	W. W. Stocker, M.R.C.S., L.R.C.P. (D.M.O. only.)
Western Area—	
Acton	C. F. L. Dixson, M.D.
Cowley and Hillingdon	H. Vickers, M.R.C.S., L.R.C.P.
Ealing (part) and West Twyford	W. P. Cockle, B.A., M.D., B.Ch.
Hanwell and Ealing (part), Greenford and Perivale.	A. M. Caverhill, M.D., Ch.B., D.T.M.
Harefield	J. T. Dunkerley, M.R.C.S., L.R.C.P.
Hayes	J. N. Parrott, M.R.C.S., L.R.C.P.
Northolt	Miss Olive J. E. G. Mulligan, M.B., Ch.B., B.A.O.
Norwood	J. McKenna, M.B., B.Ch.
Ruislip	L. W. Hignett, M.B., C.M., D.P.H.
Uxbridge and Ickenham	W. T. Dobson, M.R.C.S., L.R.C.P.
Yiewsley and West Drayton	Miss Jessie G. A. Norman, M.R.C.S., L.R.C.P.

District.	Name and Qualifications.
Southern Area—	
Ashford	L. R. Pickett, M.R.C.S., L.R.C.P.
Bedfont, Feltham and Hanworth	V. C. Montgomery, M.B., B.Ch., B.A.O.
Brentford and Brentford End	R. C. Neil, M.R.C.S., L.R.C.P.
Chiswick	A. D. Ducat, M.B., M.R.C.S., L.R.C.P.
Cranford, Harlington and Harmondsworth (Sipson and Heathrow).	P. Coffey, L.R.C.P., L.R.C.S.
Hampton	A. D. Owen, M.R.C.S., L.R.C.P., L.S.A.
Hampton Hill (S. James)	V. V. Morgan, M.R.C.S., L.R.C.P.
Hampton Wick	H. A. Gunther, M.B., M.R.C.S., L.R.C.P.
Harmondsworth (Longford) and Stanwell	J. A. Edwards, M.R.C.S., L.R.C.P.
Heston and Isleworth (part)	L. B. Christian, M.B., C.M. (P.V. only.) R. Serjeant, M.R.C.S., L.R.C.P. (D.M.O. only.)
Isleworth (part)	W. W. Phillips, M.B., Ch.B.
Laleham and Staines	A. C. Mann, M.B., B.Ch.
Shepperton and Littleton	A. Urquhart, M.A., M.B., Ch.B., D.P.H.
Sunbury	S. E. Gordon, L.R.C.P.I., L.R.C.S.I.
Teddington	C. G. A. Sadler, M.R.C.S., L.R.C.P.
Twickenham	W. L. Cassells, B.Sc., M.B., Ch.B.

Public Vaccinators for Hospitals and Institutions in the County.

Hospital or Institution.	Name and Qualifications.
North Middlesex County Hospital and Edmonton House, Enfield House and Chase Farm Schools.	I. Lewis, M.D., M.S., D.P.H.
Redhill County Hospital and Redhill Institution	J. N. Deacon, *M.C.*, M.B., B.S.
Staines Institution and Children's Home, Ashford	L. R. Pickett, M.R.C.S., L.R.C.P.
Hillingdon County Hospital and Hillingdon Institution	R. Rutherford, F.R.C.S.
Children's Home, Hillingdon (Bartram Lodge)	H. Vickers, M.R.C.S., L.R.C.P.
West Middlesex County Hospital, Warkworth House, Isleworth; Central Children's Home, South Middlesex Area (Dundee House, Isleworth).	J. B. Cook, M.D., Ch.B., D.P.H.
Central Middlesex County Hospital	W. E. Turner, M.R.C.S., L.R.C.P.
Central Children's Home, Willesden Area	G. H. Mitchell, M.B., C.M.
Ashford Residential School (L.C.C.)	W. Dale, M.R.C.S., L.R.C.P.
†Hanwell Residential School (L.C.C.)	J. A. Davidson, M.D., Ch.B.
Erskine Hill, Hendon Residential School (L.C.C.)	H. N. Payne, M.D., B.S., D.P.H.

---

† Closed, June, 1933.

SUMMARY OF IMPORTANT STATISTICS RELATING TO THE ADMINISTRATIVE COUNTY OF MIDDLESEX.

Area (including inland water)	148,691 acres.
Population 1931 (census)	1,638,728
,, 1933 (estimated for mid-year)	1,756,820
Number of structurally separate dwellings occupied, 1931 (census)	348,595
Number of private families, 1931 (census)	431,368
Rateable value, 1933	£15,326,786
Product of a penny rate, 1933	£62,329

Live births—	Total.	Male.	Female.
Legitimate	23,585	12,059	11,526
Illegitimate	916	443	473

Birth-rate	13·9
Stillbirths	822
,, Rate per 1,000 total births	32·5
Deaths	17,066
Death-rate	9·7

Number of women dying from diseases and accidents of pregnancy and childbirth :—

From sepsis	52
From other causes	65
Maternal mortality rate per 1,000 live births	4·77

Infantile mortality rate per 1,000 live births :—

Legitimate	45
Illegitimate	122
Total	48

Deaths from measles (all ages)	6
,, whooping cough (all ages)	88
,, diarrhœa (under 2 years of age)	134

Administrative County of Middlesex.

ANNUAL REPORT OF THE COUNTY MEDICAL OFFICER FOR THE YEAR 1933.

Natural and Social Conditions.

AREA.—The area of the County of Middlesex, inclusive of inland water is 148,691 acres.

There are no county boroughs in Middlesex and the boundaries of the administrative county are co-terminous with those of the geographical county. For the purposes of local government Middlesex is divided into 32 separate sanitary areas. During 1933 charters of incorporation were granted to four urban districts, namely Finchley, Southgate, Willesden and Wood Green, so that at the close of the year there were in the County :—

11 municipal boroughs with an area of 49,388 acres.
19 urban districts with an area of 83,944 acres.
2 rural districts with an area of 15,359 acres.

In the early part of the year the Ministry of Health held a local inquiry into the conclusions contained in the County Councils report, submitted as result of the first general review of county districts undertaken in accordance with section 46 of the Local Government Act, 1929. The first order of the Ministry, giving effect to the County Council's recommendations affecting parts of the County, was not issued until February, 1934.

POPULATION.—In previous Annual Reports attention has repeatedly been directed to the extraordinary growth of population in Middlesex, particularly during recent years. During 1933 the rate of growth in no way abated and Middlesex now has an estimated population of over 1¾ millions. The Registrar-General's estimate of the population of the County at mid-1933 was 1,756,820, an increase of 54,290 persons over the figure for the previous year.

In the course of the last two or three years important extensions of the Underground and Metropolitan Railways have taken place, linking some of the previously less accessible parts of the County with Central London. The builder has followed hard upon this improvement in transport facilities, and is rapidly transforming the few remaining rural parts of Middlesex into urban communities. Whether the process of urbanization will continue until the whole of Middlesex is converted into one huge town it is impossible to say. The present tendency certainly is in that direction and so long as the demand for houses in semi-rural surroundings in proximity to London continues, so long will the builder endeavour to meet that demand. On the other hand, as will be seen on reference to a later section of this report, owing to shrinkage in the birth-rate the increase of population of the country as a whole is coming to a standstill. Moreover, the growth of Middlesex is governed to a very large extent by migration from other areas ; and it is possible that a revival of industrial prosperity in the north or midlands might lead to a diversion of the stream of migrants and bring about a slowing, or even a cessation, of growth of population in Middlesex, in years to come.

It will readily be appreciated that a rapid and continued growth of population, such as that at present being experienced, creates difficulties in local government of considerable magnitude. The County is one of the smallest in England ; the population, already great, is increasing at the rate of over 1,000 persons per week. The task which continually confronts the County Council, and the other local government units in Middlesex, is a formidable one inasmuch as the population is constantly tending to outgrow the health and social services which have been established. It is manifest that this task has been made no lighter by the economic depression which has been experienced by Middlesex, in common with the rest of the country, during the past two or three years. Reference will again be made to this matter in later sections of this report, particularly in respect of the provision of hospital accommodation, and the difficulties which are being experienced in this regard, during the present period of financial stringency.

The following table gives statistical information regarding the distribution of population within the administrative county :—

POPULATION.

District.	Acreage.	Census Population. 1921.	Census Population. 1931.	Censal Increase or Decrease, 1921–1931. Persons. Increase.	Persons. Decrease.	Percentage. Increase.	Percentage. Decrease.	Estimated by Registrar-General, mid-1933.
Urban—								
Acton (Borough)	2,305	61,299	70,510	9,211	—	15·0	—	70,300
Brentford and Chiswick (Borough)	2,341	57,970	62,618	4,648	—	8·0	—	62,970
Ealing (Borough)	9,133	90,433	117,707	27,274	—	30·2	—	128,800
Edmonton	3,896	66,807	77,658	10,851	—	16·2	—	86,540
Enfield	12,574	60,650	67,874	7,224	—	11·9	—	71,790
Feltham	5,089	11,567	16,317	4,750	—	41·1	—	17,890
Finchley (Borough)...	3,384	46,716	58,964	12,248	—	26·2	—	61,140
Friern Barnet	1,304	17,375	23,101	5,726	—	33·0	—	23,990
Hampton	2,045	10,675	13,061	2,386	—	22·4	—	13,330
Hampton Wick	1,306	3,265	2,960	—	305	—	9·3	12,920
Harrow	2,129	19,637	26,380	6,743	—	34·3	—	31,690
Hayes and Harlington	5,513	9,705	23,649	13,944	—	143·7	—	28,730
Hendon (Borough)	10,471	57,529	115,682	58,153	—	101·1	—	127,600
Heston and Isleworth (Borough) ...	6,851	46,664	75,460	28,796	—	61·7	—	84,460
Hornsey (Borough)	2,875	87,659	95,523	7,864	—	9·0	—	96,070
Kingsbury	1,829	1,856	16,636	14,780	—	796·3	—	24,830
Ruislip-Northwood	6,585	9,112	16,042	6,930	—	76·0	—	18,760
Southall-Norwood	2,575	30,287	38,940	8,653	—	28·6	—	44,780
Southgate (Borough)	3,596	39,122	55,577	16,455	—	42·1	—	58,820
Staines	8,268	16,979	21,213	4,234	—	24·9	—	23,500
Sunbury...	5,463	9,829	13,337	3,508	—	35·7	—	14,080
Teddington	1,214	21,213	23,369	2,156	—	10·2	—	23,210
Tottenham	3,014	146,711	157,772	11,061	—	7·5	—	154,700
Twickenham (Borough)	2,421	34,790	39,906	5,116	—	14·7	—	41,550
Uxbridge	10,238	20,626	31,880	11,254	—	54·6	—	34,110
Wealdstone	1,061	13,433	27,019	13,586	—	101·2	—	29,680
Wembley	4,564	16,187	48,561	32,374	—	200·0	—	58,850
Willesden (Borough)	4,385	165,674	184,434	18,760	—	11·3	—	186,900
Wood Green (Borough)	1,626	50,707	54,181	3,474	—	6·8	—	54,210
Yiewsley and West Drayton ...	5,277	9,163	13,066	3,903	—	42·6	—	14,600
Rural—								
Hendon	9,230	16,140	43,611	27,471	—	170·2	—	58,560
South Mimms	6,129	3,222	5,720	2,498	—	77·5	—	7,460
The County	148,691	1,253,002	1,638,728	385,726	—	30·8	—	1,756,820

BIRTHS AND BIRTH-RATES.—The corrected number of births belonging to the County and occurring during 1933 was 24,501 (12,502 males and 11,999 females). This number is equivalent to a birth-rate of 13·9 per 1,000 of the population. The number of illegitimate births registered was 916 (443 males and 473 females), representing an illegitimate birth-rate of 0·52 per 1,000 of the population. The ratio of legitimate to illegitimate births is 26·7 to one.

The following table gives the birth statistics for the last five years for Middlesex, London, the Great Towns, and England and Wales :—

Year.	The County. Births.	The County. Rate per 1,000 living.	London. Rate per 1,000 living.	Great Towns. Rate per 1,000 living.	England and Wales. Rate per 1,000 living.
1929	23,331	16·0	15·7	16·6	16·3
1930	24,840	15·9	15·7	16·6	16·3
1931	25,507	15·5	15·0	16·0	15·8
1932	25,437	14·9	14·2	15·4	15·3
1933	24,501	13·9	13·2	14·4	14·4

The birth-rate for the County has shown a further sharp fall and is the lowest ever recorded for any year, not even excepting the years of the Great War. As will be seen from the next section, the death-rate appears to be approximating to a steady level; and if the fall in the birth-rate be continued, the time will not be far distant when the natural growth of population comes to a standstill and even commences to decline and any future increase in population in the County will then be solely due to immigration. The fall both in birth-rates and death-rates since the beginning of the present century and the gradual approximation of the two figures one to another are illustrated in the chart which appears on the next page.

Particulars of the number of births and birth-rates in each sanitary district of the County are set out in the table which follows, the districts being arranged in descending order of magnitude of the birth-rate :—

BIRTHS AND BIRTH-RATES IN EACH DISTRICT, 1933.

DISTRICT.	Net number.	Rate per 1,000 living.	DISTRICT.	Net number.	Rate per 1,000 living.
Kingsbury	503	20·3 (*23·5*)	Wembley	829	14·1 (*15·1*)
Yiewsley and West Drayton	281	19·2 (*20·8*)	Ruislip-Northwood ..	261	13·9 (*14·8*)
Hayes and Harlington ..	531	18·5 (*21·2*)	Tottenham	2,138	13·8 (*14·1*)
Wealdstone	531	17·9 (*18·0*)	Brentford and Chiswick (*Borough*)	843	13·4 (*13·9*)
Uxbridge	592	17·4 (*17·5*)	Hampton	174	13·1 (*12·2*)
Feltham	300	16·8 (*18·8*)	Hendon (*Borough*) ..	1,673	13·1 (*13·7*)
Heston and Isleworth (*Borough*)	1,380	16·3 (*17·4*)	Teddington	296	12·8 (*14·6*)
Edmonton	1,389	16·1 (*17·1*)	Ealing (*Borough*).. ..	1,638	12·7 (*14·4*)
Staines	371	15·8 (*16·2*)	Acton (*Borough*)	886	12·6 (*13·7*)
South Mimms (Rural) ..	118	15·8 (*15·3*)	Friern Barnet	299	12·5 (*13·6*)
Southall-Norwood ..	705	15·7 (*17·9*)	Harrow	393	12·4 (*14·5*)
Hendon (Rural)	889	15·2 (*17·9*)	Wood Green (*Borough*) ..	601	11·1 (*12·5*)
Sunbury	212	15·1 (*19·0*)	Finchley (*Borough*) ..	671	11·0 (*11·6*)
Willesden (*Borough*) ..	2,734	14·6 (*15·4*)	Hornsey (*Borough*) ..	1,041	10·8 (*11·4*)
Enfield	1,032	14·4 (*15·0*)	Hampton Wick	29	9·9 (*11·5*)
Twickenham (*Borough*) ..	591	14·2 (*14·7*)	Southgate (*Borough*) ..	570	9·7 (*11·4*)

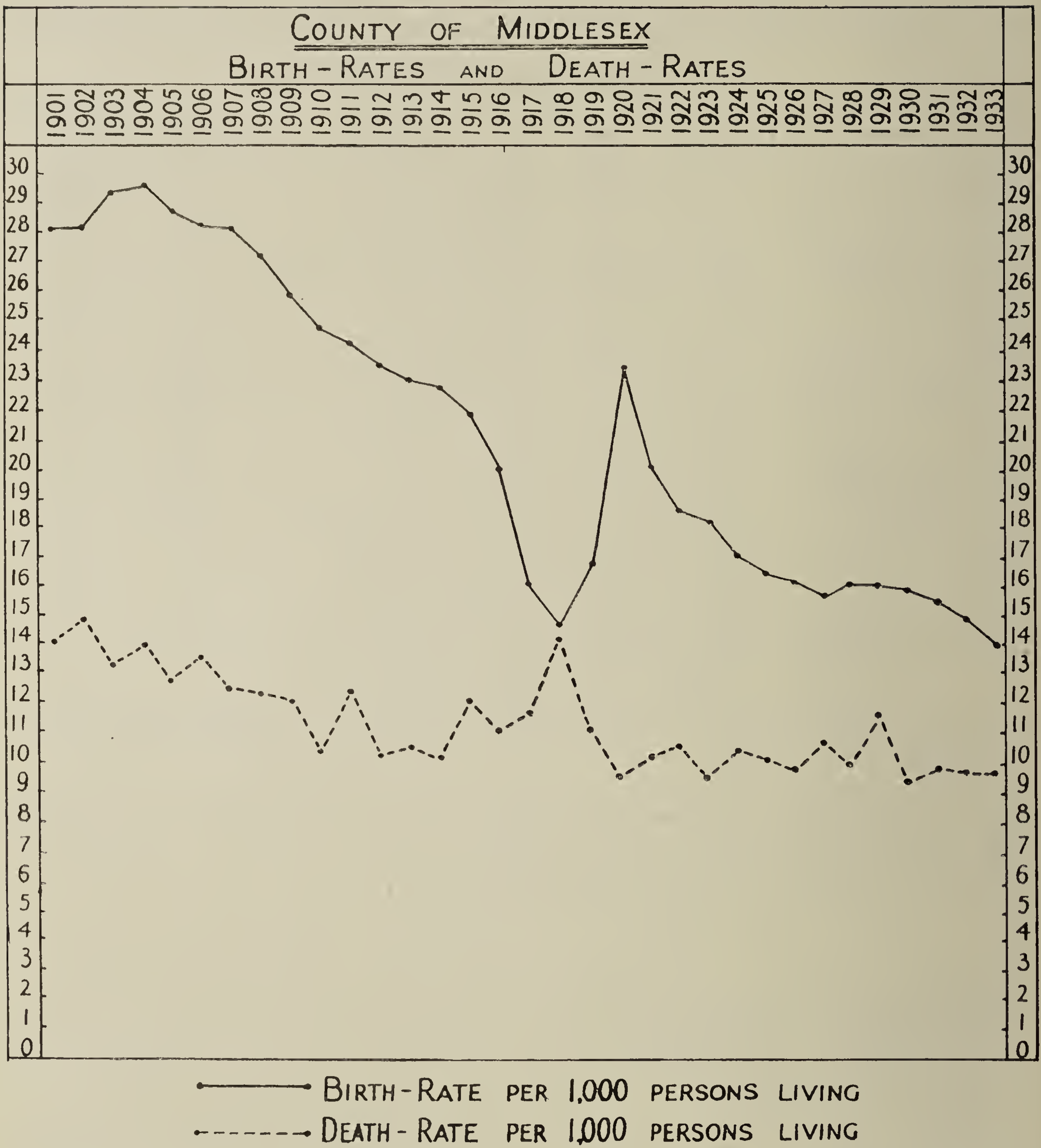
Figures in brackets indicate birth-rates in 1932.

It will be observed that with the exception of two of the smaller county districts, South Mimms and Hampton, which alone show a rise, every district has participated in the fall in birth-rate which has occurred.

Endeavour has been made to ascertain to what extent women in Middlesex are seeking institutional accommodation for their confinements. The following figures, although probably not complete, afford information as to the number of births belonging to Middlesex which have been ascertained as taking place in hospitals, and are of some interest.

BIRTHS OCCURRING IN HOSPITALS, 1933.

Hospital.	Number of Births.	
Middlesex County Council's Hospitals, &c.—		
North Middlesex County Hospital	1,270	
Central Middlesex County Hospital	484	
West Middlesex County Hospital	731	
Redhill County Hospital	484	
Hillingdon County Hospital	201	
Staines Institution	10	3,180
Other County Hospitals—		
Hertfordshire	152	
Surrey	24	
London	7	183
Municipal Maternity Hospitals—		
Chiswick and Ealing	499	
Willesden	485	984
Voluntary Hospitals—		
Queen Charlotte's Hospital	722	
City of London Maternity Hospital	165	
Salvation Army Mothers' Hospital	226	
Royal Northern Hospital	166	
Queen Mary's Maternity Hospital	307	
Other voluntary hospitals	73	1,659
Total		6,006


COUNTY OF MIDDLESEX
BIRTH - RATES AND DEATH - RATES
1901
1902
1903
1904
1905
1906
1907
1908
1909
1910
1911
1912
1913
1914
1915
1916
1917
1918
1919
1920
1921
1922
1923
1924
1925
1926
1927
1928
1929
1930
1931
1932
1933
30
29
28
27
26
25
24
23
22
21
20
19
18
17
16
15
14
13
12
11
10
9
8
7
6
5
4
3
2
1
0
BIRTH - RATE PER 1,000 PERSONS LIVING
DEATH - RATE PER 1,000 PERSONS LIVING

The number of births occurring in hospitals (6,006), represents approximately 25 per cent. of the total Middlesex births (24,501) which took place during the year. The remaining births, 18,495 in number, occurred at home or in private nursing homes. Of these, 8,930 or 48·3 per cent. were attended by certified midwives.

Still-Births.—The number of still-births registered in 1933 was 822, equivalent to a rate of 32·5 per 1,000 total births, or 0·47 still-births per 1,000 population, as compared with a rate of 0·62 for the whole country.

Deaths and Death-Rates (all Causes).—The corrected number of deaths belonging to the County occurring during 1933 was 17,066, or 550 more than occurred in the course of the previous year. This corresponds to a death-rate of 9·7 per 1,000 persons living, the same as in 1932.

The figures for the last five years relating to Middlesex, London, the Great Towns and England and Wales as a whole are as follows :—

Year.	The County.		London.	Great Towns.	England and Wales.
	Deaths.	Rate per 1,000 living.	Rate per 1,000 living.	Rate per 1,000 living.	Rate per 1,000 living.
1929	16,705	11·5	13·8	13·7	13·4
1930	14,658	9·4	11·4	11·5	11·4
1931	16,008	9·8	12·4	12·3	12·3
1932	16,516	9·7	12·3	11·8	12·0
1933	17,066	9·7	12·2	12·2	12·3

The five principal conditions contributing to the death-rate, which together are responsible for more than half the total deaths, are set out below. The order of their influence upon the death-rate has remained fairly constant for a number of years. In the early months of 1933 influenza became very prevalent and led to great pressure upon the accommodation in the Council's general hospitals. The disease, although not of the virulence of that of the world pandemics of 1918 and 1919, was of a moderate degree of severity and was directly responsible for 716 deaths, mostly among persons in the middle and later periods of life, equivalent to a death-rate of 0·41 per 1,000 persons living. Besides this direct contribution to mortality, there is no doubt that influenza was a contributory factor to the increased death-rates from diseases of the respiratory system (pneumonia, bronchitis and pulmonary tuberculosis) which were recorded in 1933.

The death-rates (per 1,000 persons living) of the principal causes of death for the past five years are as follows :—

	1929.	1930.	1931.	1932.	1933.
Heart disease	2·32	1·91	2·16	2·18	2·16
Cancer	1·33	1·28	1·36	1·33	1·37
Tuberculosis (all forms)	0·83	0·75	0·71	0·67	0·70
Pneumonia (all forms)	0·88	0·58	0·68	0·61	0·64
Cerebral hæmorrhage, &c.	0·47	0·49	0·46	0·43	0·43

Detailed information as to the different diseases which contributed towards the total number of deaths and the age groups in which these deaths occurred is given in the following table :—

CAUSES OF DEATH AT DIFFERENT PERIODS OF LIFE IN THE ADMINISTRATIVE COUNTY OF MIDDLESEX, 1933.

Causes of Death. (1)	All Ages. (2)	0— (3)	1— (4)	2— (5)	5— (6)	15— (7)	25— (8)	35— (9)	45— (10)	55— (11)	65— (12)	75— (13)
1. Typhoid and Paratyphoid fevers	5	—	—	1	1	—	2	1	—	—	—	—
2. Measles	6	—	1	3	2	—	—	—	—	—	—	—
3. Scarlet fever	33	3	1	10	16	—	1	2	—	—	—	—
4. Whooping cough ..	88	33	31	18	3	1	—	—	—	1	—	1
5. Diphtheria	95	5	3	35	47	2	—	2	1	—	—	—
6. Influenza	716	12	11	8	13	23	35	71	109	119	116	199
7. Encephalitis lethargica ..	16	—	—	—	—	2	1	2	2	4	3	2
8. Cerebro-spinal fever ..	18	6	1	3	2	3	2	1	—	—	—	—
9. Tuberculosis of respiratory system	1,046	1	3	3	8	206	276	202	192	101	45	9
10. Other tuberculous diseases	178	8	22	24	34	27	23	11	13	9	6	1
11. Syphilis	35	3	1	—	1	—	3	1	10	10	5	1
12. General paralysis of the insane, tabes dorsalis ..	61	—	—	—	—	—	3	10	17	18	11	2
13. Cancer, malignant disease	2,400	—	—	4	4	8	48	157	390	631	690	468
14. Diabetes	203	—	—	—	3	4	11	11	12	45	80	37
15. Cerebral hæmorrhage, &c.	753	—	—	—	1	—	—	17	71	146	240	278
16. Heart disease	3,792	—	—	2	24	37	79	111	262	611	1,065	1,601
17. Aneurysm	70	—	—	—	—	3	3	6	10	22	19	7
18. Other circulatory diseases	735	2	—	—	—	—	5	9	50	122	226	321
19. Bronchitis	575	25	4	2	5	2	7	16	40	55	123	296
20. Pneumonia (all forms) ..	1,118	153	42	44	17	29	39	94	122	153	207	218
21. Other respiratory diseases	176	3	1	7	4	11	14	14	31	30	30	31
22. Peptic ulcer	159	—	—	—	—	3	6	21	37	46	35	11
23. Diarrhœa, &c.	195	127	7	5	1	7	11	4	7	3	9	14
24. Appendicitis	113	—	1	4	10	14	15	14	13	20	16	6
25. Cirrhosis of liver ..	44	—	—	—	1	—	—	2	9	14	15	3
26. Other diseases of liver, &c.	69	—	—	—	2	—	1	1	4	17	19	25
27. Other digestive diseases..	356	8	10	7	26	20	19	24	53	54	75	60
28. Acute and chronic nephritis	501	4	—	3	7	10	13	32	73	118	140	101
29. Puerperal sepsis	52	—	—	—	—	7	26	18	1	—	—	—
30. Other puerperal causes ..	65	—	—	—	—	5	43	16	1	—	—	—
31. Congenital debility, premature birth, malformations, &c..	699	679	9	3	4	3	1	—	—	—	—	—
32. Senility	346	—	—	—	—	—	—	—	—	5	38	303
33. Suicide	246	—	—	—	—	18	48	48	44	52	28	8
34. Other violence	680	30	15	17	52	96	97	47	60	76	85	105
35. Other defined diseases ..	1,412	68	25	25	80	88	102	136	165	203	285	235
36. Causes ill-defined, or unknown	10	2	—	—	—	—	—	—	2	1	2	3
All causes	17,066	1,172	188	228	368	629	934	1,101	1,801	2,686	3,613	4,346
	Special Causes included in No. 35 above.											
Polioencephalitis	2	—	1	—	1	—	—	—	—	—	—	—
Poliomyelitis	8	—	—	1	3	—	3	1	—	—	—	—
Leprosy	1	—	—	—	—	—	—	—	—	1	—	—

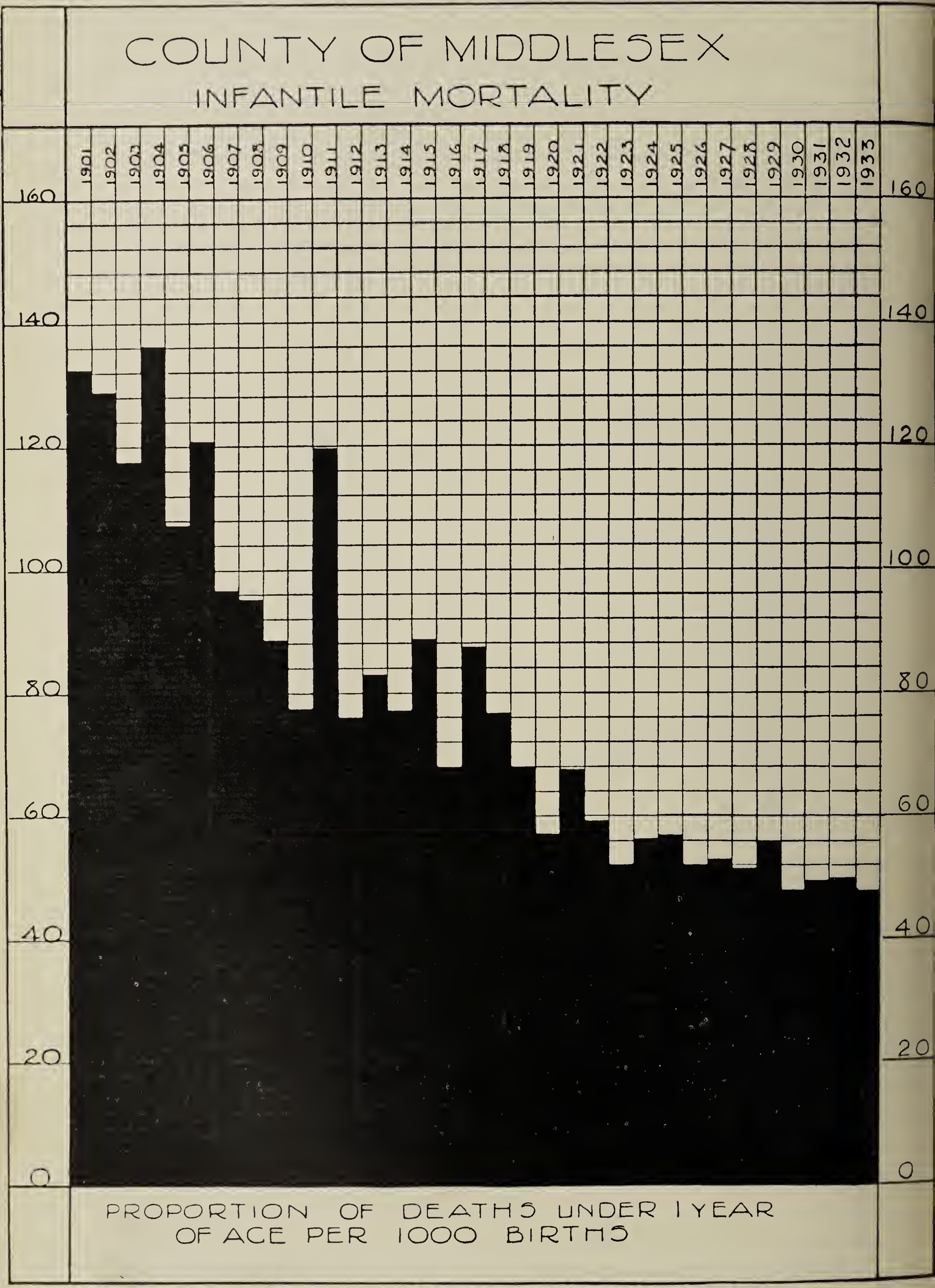
DEATHS AND DEATH-RATES IN EACH DISTRICT, 1933.

District.	Under 1 year of age. No.	Under 1 year of age. Rate per 1,000 births.	At all ages. No.	At all ages. Rate per 1,000 living.
Urban—				
Acton (*Borough*)	40	45	783	11·1
Brentford and Chiswick (*Borough*)	39	46	740	11·8
Ealing (*Borough*)	82	50	1,296	10·1
Edmonton	89	64	882	10·2
Enfield	53	51	708	9·9
Feltham	10	33	154	8·6
Finchley (*Borough*)	27	40	592	9·7
Friern Barnet	17	57	217	9·0
Hampton	8	46	134	10·1
Hampton Wick	1	34	33	11·3
Harrow	18	46	277	8·7
Hayes and Harlington	25	47	207	7·2
Hendon (*Borough*)	65	39	1,013	7·9
Heston and Isleworth (*Borough*)	60	43	792	9·4
Hornsey (*Borough*)	45	43	1,102	11·5
Kingsbury	36	72	159	6·4
Ruislip-Northwood	13	50	159	8 5
Southall-Norwood	31	44	387	8·6
Southgate (*Borough*)	19	33	591	10·0
Staines	13	35	237	10·1
Sunbury	9	42	177	12·6
Teddington	17	57	235	10·1
Tottenham	118	55	1,619	10·5
Twickenham (*Borough*)	31	52	467	11·2
Uxbridge	30	51	387	11·3
Wealdstone	21	40	215	7·2
Wembley	42	51	443	7·5
Willesden (*Borough*)	123	45	1,890	10·1
Wood Green (*Borough*)	32	53	565	10·4
Yiewsley and West Drayton	14	50	117	8·0
Rural—				
Hendon	37	42	402	6·9
South Mimms	7	59	86	11·5
The County	1,172	48	17,066	9·7

INFANTILE MORTALITY.—The number of deaths during 1933 of infants under one year of age was 1,172, equivalent to an infantile mortality rate of 48 per 1,000 births. This figure is equal to the lowest previously recorded for Middlesex (in 1930) and, as in previous years, is well below the average for the rest of the country.

Year.	The County. Births.	The County. Deaths under 1 year.	The County. Rate per 1,000 births.	London. Rate per 1,000 births.	Great Towns. Rate per 1,000 births.	England and Wales. Rate per 1,000 births.
1929	23,331	1,312	56	70	79	74
1930	24,840	1,190	48	59	64	60
1931	25,507	1,267	50	65	71	66
1932	25,437	1,285	50·5	66	69	65
1933	24,501	1,172	48	59	67	64

The infantile mortality rate for that area of the County for which the County Council is the maternity and child welfare authority also was 48.


COUNTY OF MIDDLESEX
INFANTILE MORTALITY
1901
1902
1903
1904
1905
1906
1907
1908
1909
1910
1911
1912
1913
1914
1915
1916
1917
1918
1919
1920
1921
1922
1923
1924
1925
1926
1927
1928
1929
1930
1931
1932
1933
160
140
120
100
80
60
40
20
0
PROPORTION OF DEATHS UNDER 1 YEAR OF AGE PER 1000 BIRTHS

In spite of the very hot and prolonged summer, diarrhœa accounted for no more than 10·8 per cent. (127 cases) of the infantile deaths, which is no higher than the average figure during the past few years. Respiratory diseases (pneumonia, bronchitis and influenza) were responsible for 190 infant deaths (16·2 per cent.), while 679 (58·0 per cent.) were due to congenital or developmental conditions.

Information as to the number of deaths of infants and the infantile mortality rate in each sanitary district in the County is given in the table on page 7, and on page 8 appears a diagram illustrating the variations which have occurred in the infantile mortality rate in Middlesex since the beginning of the present century.

MATERNAL MORTALITY.—During the year 117 deaths of women occurred from causes connected with pregnancy and childbirth, corresponding to a maternal mortality rate of 4·77 per 1,000 live births. This is a higher figure than has ever previously been recorded for Middlesex. As compared with 1932, maternal deaths show an increase of 19 (although 936 fewer live births took place) and the death-rate an increase of 0·92 per 1,000 live births. Maternal deaths are classified by the Registrar-General into two principal groups: those due to puerperal sepsis and those due to other accidents and diseases of pregnancy and parturition. In 1933 an increased death-rate occurred in each of these two categories to bring about the disquietingly large total death-rate mentioned above.

The following table gives information as to maternal deaths during the past five years:—

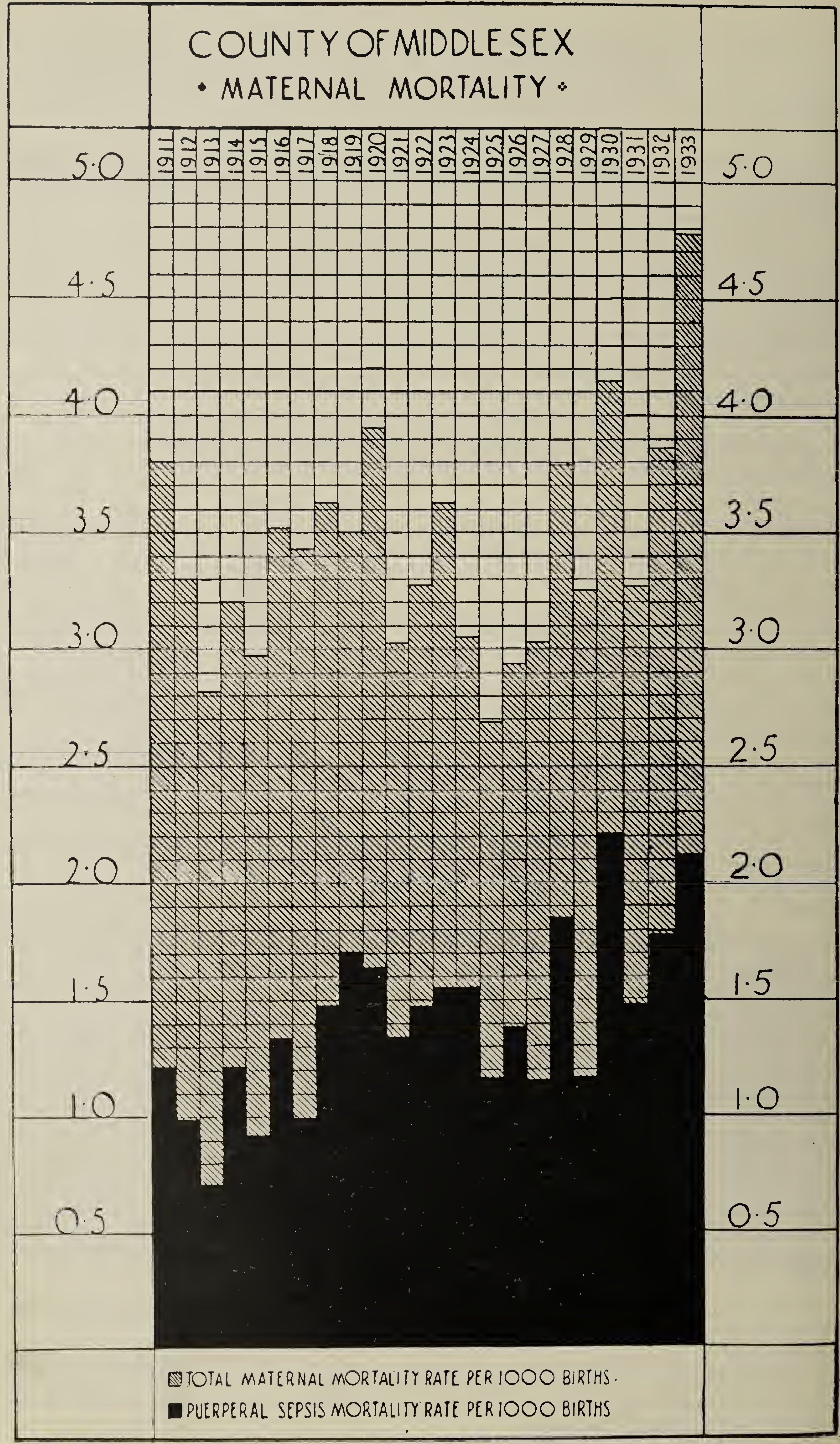
Year.	Puerperal sepsis.		Other accidents and diseases of pregnancy and parturition.		Total.	
	Number of deaths.	Rate per 1,000 births.	Number of deaths.	Rate per 1,000 births.	Maternal deaths.	Maternal mortality rate.
1929	27	1·16	49	2·10	76	3·26
1930	55	2·21	48	1·93	103	4·15
1931	38	1·49	46	1·80	84	3·29
1932	45	1·77	53	2·08	98	3·85
1933	52	2·12	65	2·65	117	4·77

The maternal mortality rate for the whole country for 1933 is 4·42 per 1,000 live births (puerperal sepsis 1·79), which, although smaller than the corresponding figure for Middlesex, is the highest maternal mortality rate recorded for England and Wales for over 30 years.

On page 10 appears a diagram illustrating the variations which have taken place in the maternal mortality rate in Middlesex since the year 1911. In view of the somewhat wide fluctuations which have occurred year by year it is not easy to draw accurate conclusions, but it is clear from the diagram, that throughout the period covered, the trend of the maternal mortality rate has not been in a downward direction. Prior to 1911, maternal deaths were registered on a somewhat different basis from that adopted subsequent to that date and, accordingly, the earlier rates do not appear in the diagram as they are not strictly comparable. An examination of the corresponding figures, however, confirms the fact that since the beginning of the present century maternal mortality rates have shown no diminution but, if anything, have tended to rise. This seems a very remarkable state of affairs when it is remembered what changes have occurred during recent years and how much thought and energy, translated into practical effort, have been expended in an endeavour to solve the problem of maternal deaths.

With a view to presenting a somewhat clearer picture of the position it may be advantageous to set out a few remarks upon the general subject of maternal mortality.

(1) The rate for Middlesex tends for the most part to follow the rate for England and Wales. When the County rate is high, the rate for the whole country is high and *vice versa*. Usually the County rate is below that for the whole country; in only four years since 1900 has the converse been true (1933 is one of these years).


COUNTY OF MIDDLESEX
• MATERNAL MORTALITY •
1911
1912
1913
1914
1915
1916
1917
1918
1919
1920
1921
1922
1923
1924
1925
1926
1927
1928
1929
1930
1931
1932
1933
5·0
4·5
4·0
3·5
3·0
2·5
2·0
1·5
1·0
0·5
▨ TOTAL MATERNAL MORTALITY RATE PER 1000 BIRTHS.
■ PUERPERAL SEPSIS MORTALITY RATE PER 1000 BIRTHS

This indicates that whatever factors are responsible for variations in maternal mortality are widespread in their influence. The problem, in fact, is a national rather than a county one.

(2) Since the commencement of the present century a number of great reforms have been effected and changes have taken place which have a bearing upon the subject. Some of these may be summarized as follows :—

(*a*) The theory and practice of midwifery have been developed, obstetrical technique has been improved and instruction in obstetrics (both for medical practitioners and midwives) has been extended and enlarged.

(*b*) The attendance upon women in childbirth by persons untrained in midwifery, a condition of affairs which was rife at the beginning of the century, has been prohibited for many years by the provisions of the Midwives Acts ; and the work of certified midwives has been kept under constant and close supervision.

(*c*) The maternity and child welfare service has been established and actively developed throughout the country. Not least among the important functions of this service have been the education of women in the hygiene of pregnancy, the combatting of the *laissez-faire* attitude towards the course of pregnancy which has existed, and the provision of facilities for ante-natal supervision. In connection with maternity and child welfare and public assistance schemes consultant services have been established, and greatly increased hospital accommodation provided, for dealing with women suffering from disorders of pregnancy and cases of normal and abnormal labour and puerperium.

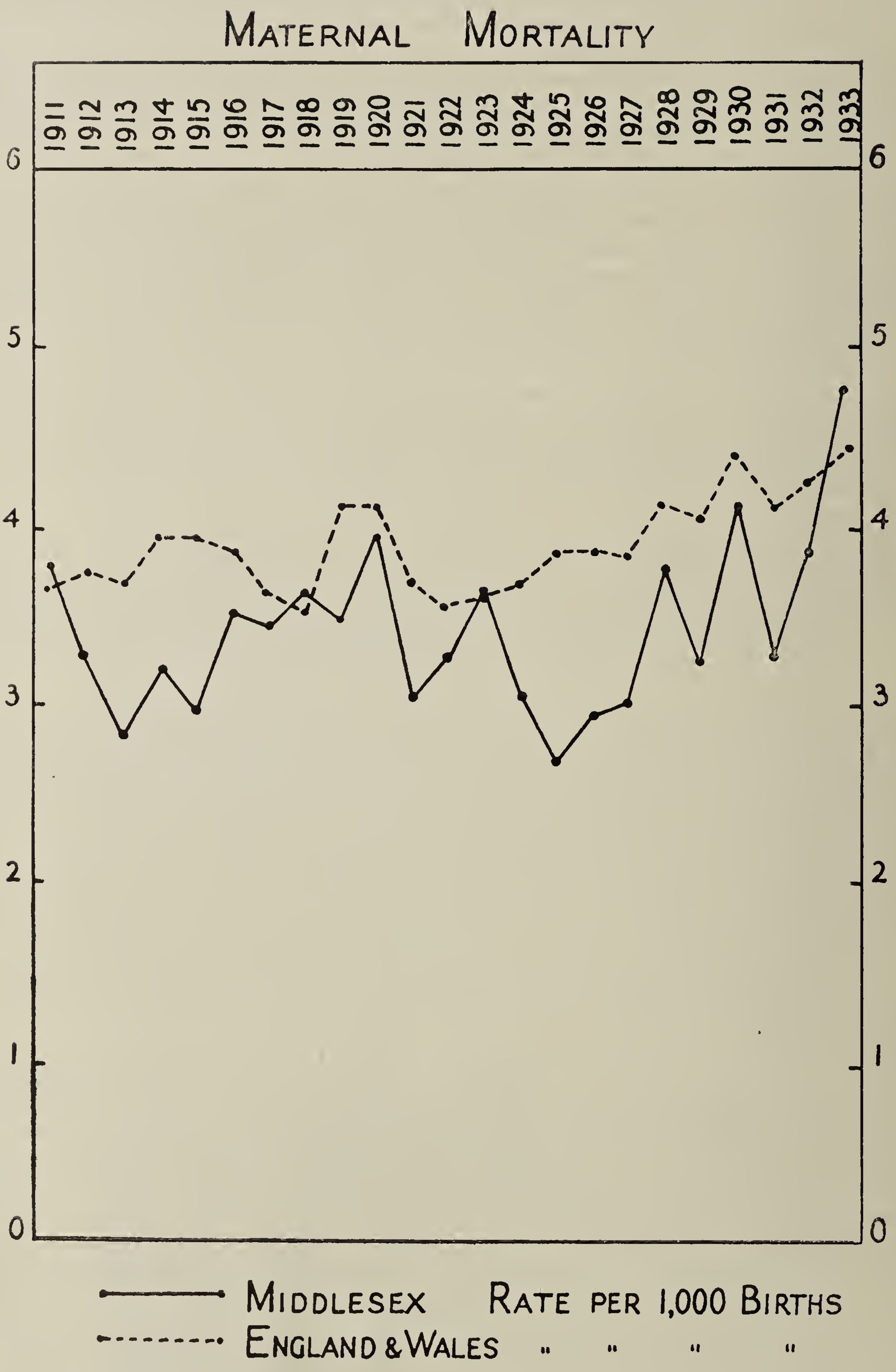
(*d*) There is evidence from records of school medical inspection that the general level of physical development of women of this country has improved. More hygienic modes of dress and participation in open-air sports and exercises have doubtless contributed to this result.

(*e*) Two diseases which were extremely prevalent at the beginning of the century and which had a detrimental effect upon the normal course of child-bearing have now practically ceased to exist. These are severe rickets, which led to deformity of the pelvic bones, and chlorosis, a form of primary anæmia affecting young women, which caused great debility and lowering of resistance to infection.

Whatever divergences of opinion may exist as to the relative importance of the changes and reforms indicated above, there can be no reasonable doubt that each one of them has exercised a beneficial influence upon the course of pregnancy and childbirth and led to a saving of many maternal lives. In these circumstances it appears to be a logical conclusion that had the standard of midwifery and general health services continued until the present time at the 1900 level, the maternal mortality-rate, instead of remaining approximately stationary or showing a slight increase, would by now have become raised to a very considerable height. It seems, therefore, that to counterbalance the favourable influences indicated above there must be operating some growing adverse factor or factors, possibly concerned with changing habits or mode of living of the people, the nature of which in the present state of knowledge can only be a matter of somewhat doubtful inference or speculation. Some suggestions regarding possible adverse influences affecting maternal mortality are contained in the paragraphs which follow.

(3) With the exception of the years immediately following the Great War, the birth-rate of this county has shown a steady fall since 1904, as is indicated by the graph on page 4. This fact has a definite bearing upon the problem of maternal mortality. Families of one or two children are now the rule rather than the exception. From this it follows that of every hundred women confined at the present time, a greater percentage are primiparæ than formerly was the case ; and, as is well known, the difficulties and risks are greater at a first than at a subsequent confinement. Contrary to what might be anticipated in view of the increase in the employment of women in industry since the war, the Registrar-General's figures show that the average age of women at the time of marriage is no higher than in the past. There can be no doubt, however, that in addition to voluntary restriction in the size of families, postponement of the first pregnancy often takes place for social or economic reasons. The proportion of elderly primiparæ, therefore, may have risen, and it is usual for such cases to present greater difficulties in labour than is the case with younger women.

(4) Deaths following abortion are included in the figures of maternal deaths. In the series of cases of over 3,000 deaths directly due to child-bearing, which recently were investigated by a Departmental Committee, 13·4 per cent. were found to be sequels of abortion. There has for some time been an impression on the part of medical superintendents of general hospitals and others that abortion has been increasing and this impression is confirmed by some returns of the Registrar-General. Owing to an alteration in classification, comparable figures are not available prior to 1928, but in the five years, 1928–32, deaths following abortion increased from 358 to 448, a rise of 25 per cent.


MATERNAL MORTALITY
1911
1912
1913
1914
1915
1916
1917
1918
1919
1920
1921
1922
1923
1924
1925
1926
1927
1928
1929
1930
1931
1932
1933
6
5
4
3
2
1
0
MIDDLESEX RATE PER 1,000 BIRTHS
ENGLAND & WALES " " " "

Since the maternal mortality rate is calculated on the basis of the number of deaths classed as due to pregnancy and childbirth per 1,000 *live births*, it follows that an increase in deaths due to abortion unfairly influences the rate: for the numerator of the fraction (representing deaths) is increased, whilst the denominator (which should represent " lives at risk " and include all non-fatal as well as fatal abortions) is unaffected.

A consideration of this and the preceding section suggests that if it were possible to apply corrections for the increased proportion of primiparæ and the apparent increase in the incidence of abortion, the maternal rate might appear as a very different and substantially lower figure.

(5) The suggestion has been made that to an increasing extent women are unwilling to suffer uncomplainingly the pains of childbirth and are prone to demand instrumental interference at the time of labour. It is stated that more and more frequently pressure is brought to bear upon midwives to call in medical aid in cases where labour is at all prolonged, and that doctors who are known to favour the use of forceps are those whose services are most in request. These are sweeping statements, the accuracy of which it is almost impossible either to confirm or refute, but it is perhaps significant that during the years 1919 to 1929 (which is the last complete year in which the County Council was the authority for the administration of the Midwives Acts throughout the entire County of Middlesex), the proportion of cases in which midwives called in medical aid to deal with conditions arising in the course of labour rose from 6·0 per cent. to 11·3 per cent., *i.e.* almost doubled. Too much weight, however, must not be given to this circumstance, as other important known factors undoubtedly had their influence upon the growth in the proportion of cases in which medical assistance was sought by certified midwives.

(6) With regard to the sharp rise in the maternal mortality-rate for 1933, affecting both the County of Middlesex and the country at large, two additional factors may have contributed. Widespread poverty, consequent upon the national industrial depression, may prejudicially have affected the nutritional level of the female population, but in this connection it must be pointed out that Middlesex was in a more favourable position than the rest of the country. On the other hand, the great prevalence of influenza and other respiratory diseases in the early months of the year were universal in distribution, Middlesex suffering at least equally with other areas, and it is possible that an increase of puerperal septic conditions may have resulted through dissemination of droplet infection from the respiratory tracts of persons in attendance upon women in labour and puerperium.

Institutional Medical Services transferred to the County Council under the provisions of the Local Government Act, 1929.

There can be little doubt that the continuous and rapid growth in the population of Middlesex has had no small share in the increased demands made upon the County Council in respect of hospital accommodation during 1933. To this factor must be added the enhanced reputation which the County Council's hospitals are acquiring as a result of the progressive policy adopted by the Council both with regard to the staffing and to the equipment of the hospitals for which they are responsible. Comparison of the turnover of work in connection with the institutional treatment of the sick, as set out in the summaries on pages 20 to 31 of this report, with the corresponding tables in last year's report is striking evidence of the growth which is taking place in all sections of hospital activity. Attention may be called to the total number of admissions of sick persons to hospitals which has risen from 26,906 in 1932 to 29,853 in 1933. This is an increase of nearly 3,000 persons (or 11.02 per cent.) admitted to hospital during the year and of this increase 2,265 (or 77.2 per cent.) were cases remaining in hospital less than 4 weeks and, therefore, persons suffering from acute as opposed to chronic illness. Turning to the attendances of patients in the out-patient departments an even greater development is to be noted, ordinary attendances increased by 11.4 per cent. viz., from 101,761 in 1932 to 113,294 in 1933, and attendances at the various ante-natal clinics showed an increase of 22.6 per cent. viz., from 13,252 in 1932 to 16,250 in 1933.

Throughout the year pressure upon hospital accommodation was fully maintained and great difficulty was experienced in temporarily vacating wards for essential cleaning purposes. This pressure was at its maximum in the earlier months when the widespread prevalence of influenza, with its associated complications of pneumonia, acute mastoid disease, etc., rendered the position in the county a matter of grave anxiety to the Council and its officers. In addition to overcrowding existing wards, emergency measures, including the equipment and utilization of a large temporary building at the North Middlesex County Hospital as a ward for some 60 patients, and the appropriation of certain day rooms at Edmonton House as wards for some 20 additional cases, enabled the Council to provide for all cases where institutional treatment was essential. It is evident, however, that the several schemes for extending hospital accommodation by the erection of additional buildings and for transferring able-bodied inmates from institutions adjacent to hospitals, thus leaving the buildings available for chronic patients, must not be delayed or the future may well provide an emergency beyond the power of the Council to deal with.

With regard to the Council's schemes for providing additional accommodation for sick persons, apart from contemplated structural additions to existing hospitals, mention may be made of two proposals which engaged the attention of the Council during the year. The first relates to the Hounslow tuberculosis dispensary. In last year's Annual Report reference was made to the discontinuance of using the upper floor for the purpose of the in-patient observation of suspected cases of tuberculosis, and the hope was expressed that it might prove possible to use the beds provided at the dispensary for some purpose in connection with the Council's duties as a Poor Law authority. In January the Council decided that, subject to the approval of the Ministry of Health, the institution should be used for the accommodation of, approximately, 19 bed-ridden inmates selected from cases in Warkworth House, and it was estimated that the total cost of adapting the institution for this purpose, redecorating the premises, supplementing the equipment, and staffing the unit for one year would not exceed £1,300. Unfortunately the proposal did not meet with the approval of the Ministry of Health, who put forward several objections to the premises and to the scheme. Negotiations continued during the year, however, for the Council felt strongly that there was no justification for accommodation which appeared to them very suitable for the purpose suggested, remaining unoccupied, in view of the pressure experienced at all the Council's hospitals and institutions. (It should be added that after the provision of two external fire escape staircases, the consent of the Ministry ultimately was obtained and the buildings were occupied in 1934.)

The second proposal which received consideration during the year was one of much greater magnitude and importance. On the site transferred by the late Brentford Guardians to the County Council, in addition to West Middlesex County Hospital, Warkworth House and other smaller buildings, is a large institution known as Percy House Schools. These premises were erected by the late Guardians some 50 years ago but became vacant upon the change of policy which resulted in children being accommodated in scattered homes. The Guardians subsequently leased the premises to H.M. Office of Works and, for a number of years, they have been in the occupation of the War Office as a store for army records. The Council came to the conclusion that the premises were capable of satisfactory adaptation for use as an institution for approximately 224 able-bodied inmates and it was estimated the cost of adaptation, redecoration and equipment would be about £23,000. The provision of this accommodation at the Percy House Schools would permit all able-bodied inmates to be transferred from Warkworth House, and thus would enable the latter institution to be entirely devoted to the treatment of chronic sick persons. The scheme commended itself to the Council who decided to proceed, subject to the approval of the Ministry of Health, and instructed the County Solicitor to negotiate with H.M. Office of Works with a view to the termination of the lease.

The development of the out-patient departments at the hospitals merits comment. Invaluable service to the community is afforded by the special departments equipped to deal with conditions which cannot be treated at patients' own homes or at the consulting rooms of the majority of general medical practitioners. In addition, the out-patient departments are available at all times to deal with accidents not requiring admission to hospital; and especially are they proving of benefit by enabling patients to be discharged from hospital at an earlier date than would otherwise be possible, to attend for supervision and treatment in the fracture, massage, electro-therapeutic or other suitable out-patient clinic. Very definite economy is thus effected and at the same time the County Council's somewhat limited in-patient accommodation is rendered available for the reception of further cases.

Attention was given by the Council, or its committees, to various matters of general interest affecting the administration of the hospitals and institutions under its care. Reference may be made to the adoption of new scales of dieting which came into operation on 1st April, and have proved very satisfactory. Later in the year it was decided to amend the dieting by the substitution of butter for margarine. The Council also had under consideration the qualification of ambulance attendants and nurses, and decided that, in future, all attendants should be qualified to handle any accidents to which they might be called, whilst ambulance nurses should not only be fully trained, but if employed in collecting maternity cases should hold the certificate of the Central Midwives Board.

The fourth and fifth County Nurses' Examinations were held in May and September respectively, and out of a total of 84 nurses who entered 68 were successful. Competition for the gold and silver medals awarded for the first three candidates at each examination is very keen and the healthy rivalry between the training schools of the five hospitals is evidence of the value of the examination. The County Gold Medals were won by nurses trained at the North and West Middlesex County Hospitals respectively, whilst the County Silver Medals were shared between the North, Central, and West Middlesex County Hospitals.

Towards the close of the year consideration was given to the question of co-operation with the Mental Hospitals Committee of the County Council with a view to utilising Section 5 of the Mental Treatment Act, 1930, when possible, in the case of patients suffering from puerperal insanity. It was generally felt that this section is very limited in its application, but is worthy of trial, as it affords the only means whereby patients without volition, whose mental trouble is likely to be temporary in duration, can be admitted to mental hospitals without the stigma of certification of unsoundness of mind. At the close of the year, however, the whole question of action under the Mental Treatment Act was the subject of conference between the Public Health and Public Assistance Committee of the Council and the Visiting Committee of the Middlesex County Mental Hospitals.

As in previous years, I set out below, under the individual hospitals and institutions, some account of various matters which have engaged the attention of the committees of management and the County Council during the past twelve months, whilst for detailed information as to the actual work carried out at each hospital, reference should be made to the annual reports prepared by the medical superintendents which form appendices to this report.

North Middlesex County Hospital.—As recorded in last year's report, at the beginning of 1933 the hospital was without the services of its two chief administrative officers, and general supervision over the hospital was being exercised by the Deputy County Medical Officer, Dr. H. M. C. Macaulay, who for this purpose had been appointed acting medical superintendent (part time), whilst Miss E. Wheeldon, Assistant Matron, carried out the duties of matron pending the appointment of a permanent officer. The position of medical superintendent was filled by the appointment of Mr. Ivor Lewis, M.D., M.S., who commenced duty on 1st April, 1933. Mr. Lewis held the position of Medical Superintendent of the City Hospital, Plymouth, at the time of his appointment. The post of matron was filled by the appointment of Miss F. Dykes, who was already in the service of the County Council as Matron of the Redhill County Hospital. Miss Dykes took up her position at the North Middlesex County Hospital on the 18th March, 1933, and on the same date Miss E. Wheeldon commenced duty as Matron of the Redhill County Hospital, to which post she had been appointed. Mention has already been made of the great strain which was placed upon the County Councils' hospital accommodation by the prevalence of influenza early in the year. As one of the steps taken to meet this pressure, an old army hut, originally erected in the Great War as a ward for 100 wounded soldiers, and used subsequently as temporary nurses' quarters, was equipped and immediately filled with some 60 patients.

Very material progress was effected by the strengthening of the nursing staff during 1933. It had been appreciated for some time that the work devolving upon the nursing staff at the hospital imposed too great a strain upon the nurses, and was too heavy to ensure that attention upon patients which it is essential should be provided. As result of representation made by the acting medical superintendent, substantial additions were made to the staff of the maternity department, and, subsequently, after consideration of a detailed report presented by the newly-appointed matron, the nursing staff of the whole hospital was augmented. In May a notable advance was made by the appointment of a whole-time physician upon the staff of the hospital. In the past, at all the hospitals transferred to the County Council under the Local Government Act, 1929, the treatment of medical conditions has tended to be overshadowed by the more spectacular results achieved by modern surgical practice. The appointment of a whole-time physician, therefore, marks the recognition by the County Council of the importance of medicine equally with surgery in the County Hospitals being kept abreast of modern developments. The new position was filled by the appointment of Dr. C. A. Birch, M.D., M.R.C.P. In July, the County Council approved a scheme for the reorganisation of the staffing of the radium department which should have far-reaching results. With the whole-hearted co-operation of the authorities of the Middlesex Hospital, London, Mr. Windeyer, F.R.C.S., whole-time Director of the radium and deep X-ray therapy department of that hospital, was appointed visiting radio-therapist at the North Middlesex County Hospital. Apart from the value of the knowledge and experience of this officer the arrangement will ensure that the work in the radium, &c., department of the North Middlesex County Hospital is kept in close touch with the advances which are certain to take place in the case of so new branches of treatment as radium and deep X-ray therapy. In addition to the appointment of a visiting radio-therapist the Council also approved the appointment of a whole-time non-resident medical officer with special knowledge of radium and deep X-ray therapy to have charge, under the direction of Mr. Windeyer, of both these branches of treatment. Later in the year Miss Margaret A. Bromhall, M.B., Ch.B., D.M.R.E., was appointed to fill this position.

Amongst the urgent needs at this hospital are more adequate accommodation for the very large numbers of out-patients who are in daily attendance, as well as more suitable provision for the reception of cases admitted to the hospital. Both these requirements are well recognised by the Council and will involve extensive building operations in the future ; meanwhile, as a temporary expedient, a temporary building, which had been used as a lecture room for nurses, was adapted to serve as a receiving department, and is proving much more convenient than the previous receiving block.

Improvements in the hospital were carried out throughout the year, such as the conversion of superfluous bathrooms into ward kitchens, the installation of additional sterilisers and bed-pan sinks, the purchase of additional equipment, &c. Amongst the latter mention may be made of the provision of an electro-cardiograph.

Especially owing to the substantial additions to the nursing staff referred to above, the question of accommodation for nurses became very urgent during the year. Temporary accommodation for 16 nurses was obtained at an educational establishment in the neighbourhood, and many other nurses were required to live out of the hospital. Accommodation for approximately 90 nurses in excess of the number which can be housed in the existing nurses' home is needed, and towards the end of the year the County Council approved in principle the extension of the nurses' home to the required size at an estimated cost of £19,260.

Edmonton House.—Reference has previously been made to the conversion of certain day rooms at this institution into wards for some 20 sick persons. The increasing proportion of sick persons dealt with at the institution also rendered it necessary to provide for the comfort of the occupants by the installation of a system of low-pressure heating in various wards, corridors, bathrooms, etc.

Enfield House.—This institution is a very old building, and the Council have from time to time endeavoured to improve the facilities for dealing with the occupants in case of fire. During 1933 it was decided further to supplement these arrangements by the provision of two additional fire-escape staircases of steel.

Chase Farm Schools.—In last year's report reference was made to one of the blocks at this institution, the ground floor of which was used as a crêche, whilst the upper floor accommodated sick children from the remainder of the institution. Apart from the fact that this combined use of the block presented certain obvious disadvantages, the desirability of removing healthy babies from Hillingdon institution, so as to render the vacated accommodation available for hospital purposes, led to the decision that the whole of the block should be used as a crêche. In order to house the staff necessary to deal with this increased number of healthy babies, a series of cubicular bedrooms etc., were constructed in one of the disused classrooms of the school.

Central Middlesex County Hospital.—The most important development at this hospital during the year was the completion of the children's block, which was referred to in my report of 1931. This block, together with the new department for electro-therapy and X-ray examinations, was equipped during the first half of the year, and the formal opening took place on 30th June. The County Council were fortunate in obtaining the consent of Sir George Newman, K.C.B., M.D., F.R.C.P., Chief Medical Officer of the Ministry of Health, to perform the opening ceremony, and his encouraging address was much appreciated by the members and officers of the Council.

A brief description of the buildings, reprinted from the brochure prepared for the guests who attended the opening ceremony, is set out below :—

Children's Wing.

The new building is three storeys in height and in the form of an inverted " T," on the south side of the main corridor, adjoining the nurses' home.

In addition to 30 separation wards, it contains 12 main wards (each for 6 beds) and 3 day rooms, all of which are lighted with Vita glass windows, and which can be thrown open for nearly the whole width and height of the south wall. On the ground floor there is a wide verandah, also glazed with Vita glass. Behind the main block is a connecting block to the main hospital corridor.

In both blocks, the wards and day rooms are divided by glazed partitions, so that all are under direct observation from the corridor and from the sister's room. In the connecting block are the ward kitchens, staircase and lift and subsidiary offices. On the ground floor there is a room for the washing, sterilizing and filling of the babies' milk bottles.

The sanitary fittings are placed in towers at the back of the main block, with open-air balconies for the sorting and disposal (by lift to ground level) of soiled linen, etc.

The main staircase and the electric bed lift, serving all floors, are carried up to the flat roof, which is surrounded by glazed screens so that patients may be taken up for sun treatment. One end is covered in and can be enclosed, and there are sanitary conveniences.

The building is of fire-resisting construction, with two emergency staircases, while fire-hose appliances are provided at suitable points. The walls are tiled for a height of 7 ft., and picture tiles are set in at eye-level; nursery-rhyme tile-pictures are fixed over the fireplaces in the day rooms.

There is a lavatory basin and a sterilizer in each of the main wards.

Heating is by low pressure hot-water connected to the main system, and radiators and piping are provided throughout the building. On the ground floor the radiators are supplemented by ceiling panel heating.

Electrical Department.

This department is in a one-storey building between the administration block and the adjoining wards. It contains an X-ray room with dark room adjoining, viewing room, office, film store and lavatory. The rest of the building comprises a large and well-fitted electrical treatment room, with preparation room and waiting room, lavatory, etc.

The treatment room is divided by curtains into nine cubicles, and a doctor's room.

The total cost of the work is approximately £45,000.

Much detailed care was given by the members of the hospital committee, and the officers concerned to the furnishing and equipment of the children's block, so as not only to provide for the practical needs of the department, but to ensure a cheerful and pleasing environment for the children who have occasion to be treated therein.

Owing to the large numbers of maternity cases which have to be dealt with at this hospital, and the very inadequate and unsatisfactory nature of the accommodation provided in the small maternity unit of the hospital, the Committee decided that, pending the erection of a new maternity department, the most suitable temporary arrangement which could be made would be to discontinue using the existing block and to adapt the top floor of the new children's wing for the accommodation of maternity cases. It was with considerable regret that this decision was reached, as it was felt that the wing was specially constructed for the accommodation of children, and was not too large for immediate demands. No alternative, however, was considered to be so suitable, and accordingly some £300 was expended in altering and equipping the top floor of the wing as a temporary maternity unit.

In view of the material increase in the size of the hospital due to the addition of the new wing, as well as to the replacement of able-bodied persons by chronic sick mentioned last year, the need for substantial additions to the medical and nursing staff ensued. This need was accentuated by the development of the work of the special departments, e.g., electrical, massage, etc., and by the general growth in the proportion of cases of acute illness admitted to the hospital. To meet these requirements two additional medical officers were added to the staff during the year, and a comprehensive scheme of augmentation of the nursing staff was approved by the Council, as well as the appointment of an assistant dispenser, radiographer and masseuse. Alterations and improvements to the existing hospital effected during the year include the renovation and adaptation of the babies' ward as an adult ward, upon the transference of the infants to the new wing; installation of wash basins with elbow taps for use in connection with three existing wards; the provision of three additional refrigerators, etc., etc.

Redhill County Hospital.—Much time was devoted to correspondence and conference with the Ministry of Health in connection with the proposed enlargement of this hospital referred to in last year's report. In connection with the contemplated widening of Edgware Road, it became necessary for the County Council to acquire certain land and premises abutting upon the Redhill County Hospital site. This land had previously been considered as a most valuable addition to the existing hospital site if it could be obtained, and the acquisition of the property for road widening purposes made this course practicable. In October, therefore, the County Council decided, subject to the approval of the Ministry of Health, to appropriate for hospital purposes the desired portion of land at a valuation of £2,815.

The acquisition of this land made it advantageous to reconsider entirely the scheme of hospital extension referred to above. The site of the hospital was vastly improved and the new land made it possible to obtain access to the hospital directly from the main Edgware Road. With the approval of the officers of the Ministry of Health, a revised scheme of extension was in active course of preparation at the close of 1933.

As in the case of the other County hospitals, additions to the equipment were made as need arose.

Redhill Institution and Redhill Old Men's Home.—Improvements in the sanitary provision for the non-resident nursing staff were carried out at the Redhill Institution; and in the institution and in the home additional cold storage was provided.

Hillingdon County Hospital.—Of all the County hospitals this is the one where the growth of work has been, and continues to be, the most phenomenal. It is also the hospital where the facilities for carrying out hospital treatment on modern lines are least developed and, in fact, in some respects are non-existent. It follows, therefore, that great difficulty in administration is being experienced, and much of the attention of the hospital committee necessarily is devoted to endeavouring to provide at once for services which can only properly be accommodated by extensive building operations. It is very satisfactory to be able to record that notwithstanding these limitations, the work carried out at the hospital is of a high standard, and the hospital is acquiring a very favourable reputation in the area it serves.

Plans for substantial additions to the hospital were in course of preparation during the year, but, meanwhile, arrangements were made for the removal of infants from the nursing block of the institution, and the adaptation of this building to serve temporarily as dispensary, laboratory, X-ray room, massage department and offices for the medical superintendent and his clerks.

A small room in the hospital, previously used by the medical superintendent, was converted into an anæsthetic room and communication established with the room which serves as an operating theatre, which it adjoins.

The staff of the hospital was increased by the appointment of an additional assistant medical officer, and a number of nurses. It should be pointed out, however, that owing to the small size of the nurses' home all additional nurses, as well as a large proportion of the existing staff, temporarily have to be found sleeping accommodation outside the hospital. Tenders for the erection of the additions to the nurses' home referred to last year were accepted by the County Council in June, and the work of enlargement is now in progress.

In my report of 1931 mention was made of the purchase by the County Council of some eight acres of land for the purpose of enlarging the hospital site. This land is separated from the hospital (which, with the institution, occupies an island site) by a road, and is also crossed by a footpath. Negotiations were undertaken which resulted in permission being obtained for the County Council to enclose a portion of the road within the hospital curtilage, and to replace this section by the construction of a new road following the general direction of the footpath, but somewhat diverted so as greatly to improve the hospital site. The cost of this road is estimated at £3,000, and in July the Minister of Health signified his approval of the proposal.

Hillingdon Institution.—The accommodation at this institution remained very fully occupied during the year, and additional equipment, rendered necessary by the increasing numbers of sick and infirm patients, was provided.

West Middlesex County Hospital.— No arrangements have hitherto existed at this hospital for the carrying out of pathological investigations, and it has been the practice to send material for examination either to the North Middlesex County Hospital, which is the only County hospital with a pathological department, or to one or other of the existing pathological laboratories in London. The fact that this is a very expensive method of dealing with the pathological work of a large hospital undoubtedly is important, but is probably the least serious of the disadvantages of the system. Delay in obtaining information as to the results of an investigation may well be detrimental to the interests of the patient; certain classes of specimens may deteriorate in transit and lead to erroneous results (*e.g.*, the death of organisms before examination can be made, &c.) and the difficulty of packing specimens may cause a medical officer to omit seeking the added knowledge pathology can afford. On the other hand the presence of a pathologist on the staff of a hospital provides its other medical officers with the opportunity of discussing with him details of the patients themselves and of the pathological material which is the subject of investigation, consultations of very great value and assistance to both. In May, the committee of management decided to equip a small temporary building (which had been used as a dispensary pending the opening of a permanent building in 1934) as a pathological laboratory and to appoint a visiting pathologist on the hospital staff. Dr. Broughton-Alcock, who had occupied the post of Senior Pathologist to the Ministry of Pensions, was appointed and supervised the adaptation, furnishing and equipment of the department, and at the close of the year the work was well in hand.

Since the date of the erection of the West Middlesex Hospital many improvements in hospital design have taken place, and in some respect the ward blocks at West Middlesex can hardly be considered as providing the facilities which are now deemed necessary for dealing with acutely ill patients. In 1932 renovation and modernisation of a ward block, which had been used as temporary quarters for the X-ray department, sick nurses, &c., was undertaken, and in 1933 the Council decided to continue the policy of systematic modernisation of the hospital by dealing with another ward block. The work involved includes the provision of hospital wash basins in both large and small wards, alterations to the bathrooms, the provision of various sanitary fittings, improvements in the ward kitchens, replacement of coal fires in the wards by radiators, alterations to the electric lighting of the wards, general redecorations and repairs and various other works. The estimated cost of the scheme of modernisation of the 3-storied block is £3,000. As in the case of other County hospitals replacements and additions to the equipment of the hospital were made during the year ; amongst the latter may be mentioned the purchase of a rotary convertor for use in connection with the diathermy apparatus, and an under-table tube for the X-ray apparatus, whilst the purchase of a refrigerator plant and ice boxes for ward use at a cost of £1,063, also was made.

Warkworth House.—Reference has been made earlier in this report to the proposal ultimately to reserve the whole of the accommodation at this institution for the reception of cases of sickness of a chronic type ; meanwhile, however, the proportion of cases in the institution coming within this category is constantly increasing.

The proposed use of Percy House Schools for the accommodation of inmates (see earlier) brought the problem of the laundry provision at Warkworth House to the front, and much time was devoted to the consideration of the best course to adopt. The laundry at Warkworth House already serves the institution, the West Middlesex County Hospital, including the recently opened Queen Mary Maternity Wing, and the children's scattered homes. The use of Percy House will increase the number of articles to be dealt with by some 6,000 to 7,000 per week, and notwithstanding the addition of a new ironing machine in 1932, great difficulty is experienced in dealing with the present demands. After careful consideration, it was decided that the only satisfactory plan was to re-design and re-equip the laundry and, subject to the approval of the Minister of Health, the carrying out of this scheme at an estimated cost of £12,900 was approved.

Staines Institution.—The question of the suitability of the accommodation provided for maternity cases was under consideration. As a result, a rearrangement in the equipment in the rooms was made, and the floors were covered with linoleum. With these improvements the accommodation is now reasonably satisfactory for a small number of normal confinements. During the year 18 beds of very old type used by sick inmates were replaced by beds of a modern type more suitable for the purpose, and 18 bed tables also were provided.

The tables on pages 20 to 31, and the appendices to this report, afford statistical information of the work carried out by the County Council in connection with the treatment of the sick at its several general hospitals and institutions in 1933. To this record, however, should be added the information that during the same period 355 persons were sent to convalescent homes, including the County Council Convalescent Home, Edgbury, Woburn Sands ; 56 to special hospitals and homes, and 21 to epileptic colonies. At the close of the year 172 patients were being maintained by the County Council in such establishments.

SUMMARY OF THE RETURNS RELATING TO THE INSTITUTIONAL TREATMENT OF THE SICK PREPARED BY THE MEDICAL SUPERINTENDENTS AND MEDICAL OFFICERS AND REQUIRED BY THE MINISTRY OF HEALTH.

North Middlesex County Hospital.

ACCOMMODATION FOR THE SICK, MATERNITY AND MENTAL CASES AND THE NUMBER OF BEDS OCCUPIED ON THE 31ST DECEMBER, 1933.

Classification of Wards.	Number of Wards.	BEDS.							
		MEN.		WOMEN.		CHILDREN (Under 16).		Total.	
		Pro-vided.	Occu-pied.	Pro-vided.	Occu-pied.	Pro-vided.	Occu-pied.	Pro-vided.	Occu-pied.
Medical	5	89	89	78	76	40	18	207	183
Surgical	7	99	89	117	114	9	6	225	209
Chronic sick*	8	77	75	207	203	—	—	284	278
Children	1	—	—	—	—	35	35	35	35
Venereal	—	—	—	—	—	—	—	—	—
Tuberculosis	—	9	9	13	13	6	6	28	28
Isolation	—	—	—	—	—	—	—	—	—
Maternity block.. ..	1	—	—	66	52	—	—	66	52
Mental	2	16	5	14	11	—	—	30	16
Mental defectives ..	—	1	1	—	—	—	—	1	1
Other :—									
Epilepsy	—	5	5	4	4	—	—	9	9
Senile Dementia ..	1	14	14	58	58	—	—	72	72
TOTAL	25	310	287	557	531	90	65	957	833

* NOTE.—Patients needing hospital treatment because they are suffering from some chronic disease; also aged infirm persons whose medical and nursing needs approximate to those of chronic patients.

Not included in above table :—

20 balcony beds (available in summer only) for tuberculous patients	Occupied 31.12.33, Nil.
58 cots for maternity infants	Occupied 31.12.33, 38.

Extent of Provision for Out-Patients.

Nature and scope of the out-patient provision for continuation of treatment, emergency treatment, consultations or otherwise.	The out-patient department provides for treatment of casualties, after-care, consultations and treatment in special departments. These departments are as follows :— (1) General medical; (2) General surgical; (3) Ear, nose and throat; (4) Ophthalmic; (5) Massage; (6) Ante-natal and gynæcological; (7) Casualty; (8) Dental; (9) Electro-therapeutic; (10) Radium and Röntgen deep and superficial therapy; (11) Diagnostic X-ray; (12) Fracture clinic; (13) Ultra-violet light; (14) Varicose veins clinic.
Total number of persons seen in the out-patient department.	9,861 (excluding ante-natal cases).
Number of these persons who were admitted for in-patient treatment.	650 do. do.
Number of these persons who had received in-patient treatment.	1,775
Total number of attendances in the out-patient department.	67,945 do. do.

Ante-natal clinic	Number of women seen	1,293
	Total number of attendances.	7,346

Edmonton House.

ACCOMMODATION FOR THE SICK AND MENTAL CASES, AND THE NUMBER OF BEDS OCCUPIED ON THE 31ST DECEMBER, 1933.

Classification of Wards.	Number of Wards.	BEDS.							
		MEN.		WOMEN.		CHILDREN. (Under 16).		Total.	
		Provided.	Occupied.	Provided.	Occupied.	Provided.	Occupied.	Provided.	Occupied.
Chronic sick	8	95	94	120	119	—	—	215	213
Mental Defectives ..	—	—	—	—	1	—	1	—	2
Total	8	95	94	120	120	—	1	215	215

Enfield House.

ACCOMMODATION FOR THE SICK AND MENTAL CASES, AND THE NUMBER OF BEDS OCCUPIED ON THE 31ST DECEMBER, 1933.

Classification of Wards.	Number of Wards.	BEDS.							
		MEN.		WOMEN.		CHILDREN. (Under 16).		Total.	
		Provided.	Occupied.	Provided.	Occupied.	Provided.	Occupied.	Provided.	Occupied.
Chronic sick	8	20	24	52	55	—	—	72	79
Mental defectives ..	10	50	50	—	—	—	—	50	50
Total	18	70	74	52	55	—	—	122	129

Fortescue Villas, Enfield.

ACCOMMODATION FOR MENTAL CASES, AND THE NUMBER OF BEDS OCCUPIED ON THE 31ST DECEMBER, 1933.

Classification of Wards.	Number of Wards.	BEDS.							
		MEN.		WOMEN.		CHILDREN. (Under 16).		Total.	
		Provided.	Occupied.	Provided.	Occupied.	Provided.	Occupied.	Provided.	Occupied.
Mental defectives ..	7	—	—	2	2	31	25	33	27
Total	7	—	—	2	2	31	25	33	27

Chase Farm Schools.

ACCOMMODATION FOR THE SICK, AND THE NUMBER OF BEDS OCCUPIED ON THE 31ST DECEMBER, 1933.

Classification of Wards.	Number of Wards.	BEDS.							
		MEN.		WOMEN.		CHILDREN. (Under 16).		Total.	
		Provided.	Occupied.	Provided.	Occupied.	Provided.	Occupied.	Provided.	Occupied.
Chronic sick	4	—	—	37	37	2	2	39	39
Total	4	—	—	37	37	2	2	39	39

Edgbury Convalescent Home.

ACCOMMODATION FOR THE SICK, AND THE NUMBER OF BEDS OCCUPIED ON THE 31ST DECEMBER, 1933.

Classification of Wards.	Number of Wards.	BEDS.							
		MEN.		WOMEN.		CHILDREN. (Under 16).		Total.	
		Provided.	Occupied.	Provided.	Occupied.	Provided.	Occupied.	Provided.	Occupied.
Medical	11	—	—	74	64	—	6	74	70
Total	11	—	—	74	64	—	6	74	70

Central Middlesex County Hospital.

ACCOMMODATION FOR THE SICK, MATERNITY AND MENTAL CASES, AND THE NUMBER OF BEDS OCCUPIED ON THE 31ST DECEMBER, 1933.

Classification of Wards.	Number of Wards.	BEDS.							
		MEN.		WOMEN.		CHILDREN. (Under 16).		Total.	
		Pro-vided.	Occu-pied.	Pro-vided.	Occu-pied.	Pro-vided.	Occu-pied.	Pro-vided.	Occu-pied.
Medical	8	117	117	142	138	—	3	259	258
Surgical	5	70	69	50	42	—	6	120	117
Chronic sick ..	3	90	88	151	151	—	1	241	240
Children	3	—	—	—	—	114	110	114	110
Venereal	—	—	—	—	—	—	—	—	—
Tuberculosis ..	2	9	5	8	8	—	—	17	13
Isolation	—	—	—	—	—	—	—	—	—
Maternity	1	—	—	28	27	—	—	28	27
Mental .. .. (*a*) Short stay .. (*b*) Long stay ..	2	7	—	7	1	—	—	14	1
Mental defectives ..	—	—	—	28	27	—	1	28	28
Other	1	—	—	10	2	—	—	10	2
Total	25	293	279	424	396	114	121	831	796

Extent of provision for Out-Patients.

Nature and scope of the out-patient provision for continuation of treatment, emergency treatment, consultations or otherwise.	Casualties, massage, electrical treatment, X-ray, after-treatment of injuries.
Total number of persons seen in the out-patient department.	1,021
Number of these persons who were admitted for in-patient treatment.	61
Number of these persons who had received in-patient treatment.	75
Total number of attendances in the out-patient department.	1,884
Ante-natal clinic: Number of women seen ..	511
Ante-natal clinic: Total number of attendances	1,672

Redhill County Hospital.

ACCOMMODATION FOR THE SICK, MATERNITY AND MENTAL CASES, AND THE NUMBER OF BEDS OCCUPIED ON THE 31ST DECEMBER, 1933.

Classification of Wards.	Number of Wards.	Beds.							
		Men.		Women.		Children. (Under 16).		Total.	
		Pro-vided.	Occu-pied.	Pro-vided.	Occu-pied.	Pro-vided.	Occu-pied.	Pro-vided.	Occu-pied.
Medical	2	31	16	30	16	—	8	61	40
Surgical	2	31	34	28	25	—	4	59	63
Chronic sick	—	—	—	—	—	—	—	—	—
Children	1	—	—	—	—	24	19	24	19
Venereal	—	—	—	—	—	—	1	—	—
Tuberculosis	—	—	—	—	—	—	—	—	1
Isolation	—	—	—	—	—	—	—	—	—
Maternity	1	—	—	25	23	—	—	25	23
Mental	—	—	—	—	—	—	—	—	—
(*a*) Short stay ..	—	—	—	—	—	—	—	—	—
(*b*) Long stay	—	—	—	—	—	—	—	—	—
Mental defectives ..	—	—	—	—	—	—	—	—	—
Ear, nose and throat ..	2	7	1	8	4	6	15	21	20
Total	8	69	51	91	68	30	47	190	166

Extent of provision for Out-Patients.

Nature and scope of the out-patient provision for continuation of treatment, emergency treatment, consultations or otherwise.	In-patients transferred to out-patients, casualties and patients sent for consultation, or otherwise, are seen in the following out-patients departments :—General medical, general surgical, ear, nose and throat, X-ray, massage, electro-therapeutic and ultra-violet light, daily; ante-natal, post-natal and dental, each twice weekly; orthopædic, head injury clinic and varicose vein clinic, each once weekly.
Total number of persons seen in the out-patient department.	4,673
Number of these persons who were admitted for in-patient treatment.	281
Number of these persons who had received in-patient treatment.	650
Total number of attendances in the out-patient department.	18,716
Ante-natal clinic { Number of women seen	655
Ante-natal clinic { Total number of attendances.	2,330

Redhill Institution.

ACCOMMODATION FOR THE SICK AND MENTAL CASES, AND THE NUMBER OF BEDS OCCUPIED ON THE 31ST DECEMBER, 1933.

Classification of Wards.	Number of Wards.	Beds.							
		Men.		Women.		Children. (Under 16).		Total.	
		Provided.	Occupied.	Provided.	Occupied.	Provided.	Occupied.	Provided.	Occupied.
Chronic sick	7	34	31	77	75	—	1	111	107
Tuberculosis	—	—	1	—	2	—	—	—	3
Total	7	34	32	77	77	—	1	111	110

West Middlesex County Hospital.

ACCOMMODATION FOR THE SICK, MATERNITY AND MENTAL CASES, AND THE NUMBER OF BEDS OCCUPIED ON THE 31ST DECEMBER, 1933.

Classification of Wards.	Number of Wards.	Beds.							
		Men.		Women.		Children. (Under 16).		Total.	
		Provided.	Occupied.	Provided.	Occupied.	Provided.	Occupied.	Provided.	Occupied.
Medical	13	108	104	133	127	—	—	241	231
Surgical	4	45	43	45	38	—	—	90	81
Chronic sick	—	—	—	—	—	—	—	—	—
Children	9	—	—	—	—	119	106	119	106
Venereal	—	—	—	—	—	—	—	—	—
Tuberculosis	4	16	10	17	14	—	—	33	24
Isolation	—	—	—	—	—	16	16	16	16
Maternity	12	—	—	31	29	—	—	31	29
Mental									
(*a*) Short stay ..	—	—	—	—	—	—	—	—	—
(*b*) Long stay ..	—	—	—	—	—	—	—	—	—
Mental defectives ..	—	—	—	—	—	—	—	—	—
Other	—	—	—	—	—	—	—	—	—
Total	42	169	157	226	208	135	122	530	487

Extent of provision for Out-Patients.

Nature and scope of the out-patient provision for continuation of treatment, emergency treatment, consultations or otherwise.	Ophthalmic, electrical department, massage, X-ray and casualties.
Total number of persons seen in the out-patient department	1,703
Total number of attendances in the out-patient department ..	11,885

Ante-natal clinic { Number of women seen 771
Total number of attendances 3,957

Warkworth House.

ACCOMMODATION FOR THE SICK, MATERNITY AND MENTAL CASES, AND THE NUMBER OF BEDS OCCUPIED ON THE 31ST DECEMBER, 1933.

Classification of Wards.	Number of Wards.	BEDS.							
		MEN.		WOMEN.		CHILDREN (Under 16).		**Total.**	
		Pro-vided.	Occu-pied.	Pro-vided.	Occu-pied.	Pro-vided.	Occu-pied.	**Pro-vided.**	**Occu-pied.**
Chronic sick	36	195	195	300	289	2	2	**497**	**486**
Mental—									
(*a*) Short stay ..	2	—	—	—	—	—	—	—	—
(*b*) Long stay ..	7								
Mental defectives ..		8	8	25	25	1	**1**	**34**	**34**
Other mental cases ..		39	32	86	72	1	**1**	**126**	**105**
Total	45	242	235	411	386	4	**4**	**657**	**625**

Hillingdon County Hospital.

ACCOMMODATION FOR THE SICK, MATERNITY AND MENTAL CASES, AND THE NUMBER OF BEDS OCCUPIED ON THE 31ST DECEMBER, 1933.

Classification of Wards.	Number of Wards.	BEDS.							
		MEN.		WOMEN.		CHILDREN (Under 16).		Total.	
		Pro-vided.	Occu-pied.	Pro-vided.	Occu-pied.	Pro-vided.	Occu-pied.	Pro-vided.	Occu-pied.
Medical	2	17	12	17	13	—	3	34	28
Surgical	2	32	15	32	11	—	11	64	37
Children	1	—	—	—	—	8	6	8	6
Tuberculosis	—	—	4	—	5	—	2	—	11
Isolation..	1	—	—	2	—	6	—	8	—
Maternity	1	—	—	12	6	—	—	12	6
Total	7	49	31	63	35	14	22	126	88

Extent of provision for Out-Patients.

Nature and scope of the out-patient provision for continuation of treatment, emergency treatment, consultations or otherwise.	Orthopædic clinic. Urological clinic. Ear, nose and throat clinic. Medical clinic, General surgical clinic. Casualties.

Total number of persons seen in the out-patient department, 2,550.
Number of these persons who were admitted for in-patient treatment, 604.
Number of these persons who had received in-patient treatment, 400.
Total number of attendances in the out-patient department, 12,864.

Ante-natal clinic {Number of women seen, 180.
Total number of attendances, 945.

Hillingdon Institution.

ACCOMMODATION FOR THE SICK, MATERNITY AND MENTAL CASES, AND THE NUMBER OF BEDS OCCUPIED ON THE 31ST DECEMBER, 1933.

Classification of Wards.	Number of Wards.	Beds.							
		MEN.		WOMEN.		CHILDREN. (Under 16).		Total.	
		Provided.	Occupied.	Provided.	Occupied.	Provided.	Occupied.	Provided.	Occupied.
Medical	—	—	7	—	2	—	—	—	9
Surgical .. .	—	—	2	—	—	—	—	—	2
Chronic sick	2	54	36	55	57	—	—	109	93
Mental—									
Short stay	—	—	—	—	2	—	—	—	2
Mental defectives ..	—	—	4	—	—	—	—	—	4
Other	—	—	3	—	3	—	—	—	6
TOTAL	2	54	52	55	64	—	—	109	†116

† This number is in excess of beds provided owing to extra beds crowded into sick wards.

Staines Institution.

ACCOMMODATION FOR THE SICK, MATERNITY AND MENTAL CASES, AND THE NUMBER OF BEDS OCCUPIED ON THE 31ST DECEMBER, 1933.

Classification of Wards.	Number of Wards.	Beds.							
		MEN.		WOMEN.		CHILDREN (Under 16).		Total.	
		Provided.	Occupied.	Provided.	Occupied.	Provided.	Occupied.	Provided.	Occupied.
Medical	2	5	4	6	6	—	—	11	10
Surgical	2	4	2	4	3	—	—	8	5
Chronic sick	8	53	47	43	41	2	2	98	90
Children	1	—	—	—	—	—	—	—	—
Maternity	2	—	—	4	1	—	—	4	1
Mental	2	2	—	2	—	—	—	4	—
Mental defectives ..	—	—	—	1	1	—	—	1	1
Other	1	1	1	—	—	—	—	1	1
Total ..	18	65	54	60	52	2	2	127	108

STATISTICS RELATING TO IN-PATIENTS DEALT WITH AT THE COUNTY HOSPITALS AND INSTITUTIONS DURING THE YEAR ENDED 31ST DECEMBER, 1933.

	North Middlesex County Hospital.	Edmonton House.	Enfield House.	Fortescue Villas.	Chase Farm Schools.	Edgbury Con-valescent Home.	Central Middlesex County Hospital.	Redhill County Hospital.	Redhill Institu-tion.	West Middlesex County Hospital.	Wark-worth House.	Hillingdon County Hospital.	Hillingdon Institu-tion.	Staines Institu-tion.
					Cases transferred from County Hospitals and Institutions.									
Total number of admissions (including infants born in hospital)	11,962	440	*	6	107	474	5,152	3,788	595	6,312	1,458	2,639	650	210
Number of women confined in hospital	1,205	—	—	—	—	—	475	474	—	731	—	197	—	10
Number of live births	1,142	—	—	—	—	—	463	465	—	690	—	189	—	10
Number of still births	79	—	—	—	—	—	21	19	—	53	—	12	—	—
Number of deaths among the newly-born (*i.e.*, under four weeks of age)†	100	—	—	—	—	—	22	19	—	20	—	4	—	—
Total number of deaths among children under one year ...	173	—	—	—	—	—	49	41	—	59	—	22	—	—
Number of maternal deaths among women admitted to hospital for confinement	8	—	—	—	—	—	3	3	—	7	—	9	—	—
Total number of deaths	1,695	124	29	—	12	6	673	215	205	797	401	201	157	49
Number of discharges (including infants born in hospital)... ...	10,225	308	43	12	130	465	4,369	3,567	400	5,494	1,043	2,456	521	162
Duration of stay of patients—														
(*a*) under four weeks	9,257	191	5	—	56	119	3,598	3,406	107	4,093	842	2,358	484	134
(*b*) four and under thirteen weeks	2,203	139	10	—	64	317	1,095	288	163	1,634	350	247	106	37
(*c*) thirteen weeks or more ...	460	102	57	12	22	35	349	88	335	564	252	52	88	40
Number of beds occupied—														
(*a*) Average during the year ...	926	219	77	30	43	71	726	192	116	501	610	110	135	113
(*b*) Highest	1,069	229	82	33	72	77	821	213	123	572	637	‡155	§158	121
(*c*) Lowest	827	214	72	24	37	59	681	163	104	452	579	80	107	105
Number of surgical operations under general anæsthetic (excluding dental operations) ...	2,572	—	—	—	—	—	710	1,693	—	1,236	—	1,485	15	—
Number of abdominal sections ...	965	—	—	—	—	—	364	284	—	380	—	328	—	—

* Patients are admitted only from the healthy wards of the institution and, owing to frequent interchange between the healthy and sick wards, it is not possible to give an accurate figure of admissions to the sick wards.

† Relating only to children born in hospital.

‡ This figure is arrived at owing to the fact that at the beginning of the year a number of sick children were accommodated in the healthy nursery block.

§ This high figure is due to extra beds being crowded into wards.

STATISTICS RELATING TO IN-PATIENTS DEALT WITH IN THE MATERNITY DEPARTMENTS OF THE COUNTY HOSPITALS AND INSTITUTIONS DURING THE YEAR ENDED 31ST DECEMBER, 1933.

——	North Middlesex County Hospital.	Central Middlesex County Hospital.	Redhill County Hospital.	West Middlesex County Hospital.	Hillingdon County Hospital.	Staines Institution.
Number of beds	66	*16	25	31	12	4
Number of cases admitted during the year	1,248	488	474	747	197	10
Average duration of stay (in days)	14	12	14	14	14	12-14
Number of women delivered by—						
(*a*) Midwives	1,059	460	441	681	173	10
(*b*) Doctors	146	15	33	50	24	—
Number of cases in which medical assistance was sought by a midwife ..	407	25	157	147	—	1
Number of cases notified as—						
(*a*) Puerperal fever ..	19	—	5	5	2	—
(*b*) Puerperal pyrexia ..	35	6	20	27	17	—
Number of cases of pemphigus neonatorum	—	1	—	—	—	—
Number of infants not entirely breastfed while in the Institution	306	8	22	35	18	—
Number of cases notified as ophthalmia neonatorum ..	6	2	—	1	1	—
Number of maternal deaths..	8	3	7	7	9	—
Number of still-births ..	80	21	19	53	12	—
Number of neo-natal deaths	58	22	17	15	4	—

* Increased to 28 beds on 13th December.

CLASSIFICATION OF IN-PATIENTS WHO WERE DISCHARGED FROM OR WHO DIED
31ST DEC

DISEASE GROUPS.	North Middlesex County Hospital.		Edmonton House.		Enfield House.		Fortescue Villas.		Chase Farm Schools.	
									Cases transferred from County Hospitals & Institutions.	
	Children (under 16).	Men and Women.	Children (under 16).	Men and Women.	Children (under 16).	Men and Women.	Children (under 16).	Men and Women.	Children.	Women.
A. Acute infectious disease (1)*	29	37	—	52	—	1	—	—	1	—
B. Influenza (2)	34	149	—	—	—	5	—	—	—	—
C. Tuberculosis—										
Pulmonary	12	169	—	—	—	—	—	—	2	—
Non-pulmonary	41	38	—	—	—	—	—	—	—	—
D. Malignant disease	7	521	—	5	—	1	—	—	—	—
E. Rheumatism—										
(*a*) Acute rheumatism (rheumatic fever), together with sub-acute rheumatism and chorea ...	79	91	—	—	—	—	—	—	8	—
(*b*) Non-articular manifestations of so-called "rheumatism" (muscular rheumatism, fibrositis, lumbago and sciatica)	1	28	—	—	—	—	—	—	—	—
(*c*) Chronic arthritis	—	120	—	—	—	4	—	—	—	2
F. Venereal disease	2	22	—	—	—	—	—	—	—	—
G. Puerperal pyrexia	—	36	—	—	—	—	—	—	—	—
H. Puerperal fever—										
(*a*) Women confined in the hospital	—	19	—	—	—	—	—	—	—	—
(*b*) Other cases	—	2	—	—	—	—	—	—	—	—
I. Other diseases and accidents connected with pregnancy and childbirth	2	384	—	—	—	1	—	—	—	—
J. Mental diseases—										
(*a*) Senile dementia	—	26	—	—	—	3	—	—	—	—
(*b*) Other	12	554	—	—	—	2	10	2	—	—
K. Senile decay (3)...	—	116	—	122	—	2	—	—	—	5
L. Accidental injury and violence (4) ...	228	793	—	—	—	2	—	—	—	1
In respect of cases not included above :										
M. Disease of the nervous system and sense organs	248	394	—	76	—	3	—	—	5	—
N. Disease of the respiratory system ...	291	721	—	59	—	5	—	—	12	—
O. ,, circulatory system ...	10	718	—	118	—	15	—	—	—	—
P. ,, digestive system ...	387	1,527	—	—	—	5	—	—	25	—
Q. ,, genito-urinary system	80	585	—	—	—	4	—	—	—	—
R. ,, skin	85	224	—	—	—	—	—	—	19	—
S. Other diseases	145	396	—	—	—	—	—	—	25	9
T. Mothers and infants discharged from maternity wards and not included in above figures :—										
(*a*) Mothers	—	1,309	—	—	—	—	—	—	—	—
(*b*) Infants	1,191	—	—	—	—	—	—	—	—	—
U. Any persons not falling under any			—	—	—	—	—	—	—	—
of the above headings	23	34	—	—	—	19	—	—	28	—
Total	2,907	9,013	—	432	—	72	10	2	125	17

---

*(1) Including—with the exception of acute primary and influenzal pneumonia, tuberculosis, puerperal pyrexia and puerperal fever—all generally notifiable diseases, together with measles, German measles, chickenpox, whooping cough and mumps. Cases of influenzal pneumonia, tuberculosis, puerperal pyrexia, puerperal fever and acute primary pneumonia are recorded respectively under Groups B, C, G, H and N. Cases of encephalitis lethargica are entered under Group A if acute and under Group M if chronic.

(2) Including acute influenzal pneumonia.

(3) Confined to cases and deaths in which no more specific diagnosis was practicable.

(4) Including suicides, attempted suicides and poisoning cases.

in the County Hospitals and Institutions during the Year Ended
ember, 1933.

Edgbury Convalescent Home.		Central Middlesex County Hospital.		Redhill County Hospital.		Redhill Institution.		West Middlesex County Hospital.		Warkworth House.		Hillingdon County Hospital.		Hillingdon Institution.		Staines Institution.	
Children (under 16).	Women.	Children (under 16).	Men and Women.	Children (under 16).	Men and Women.	Children (under 16).	Men and Women.	Children (under 16).	Men and Women.	Children (under 16).	Men and Women.	Children (under 16).	Men and Women.	Children (under 16).	Men and Women.	Children (under 16).	Men and Women.
1	4	97	149	25	21	—	2	100	75	4	5	46	9	—	1	2	—
2	17	2	62	13	61	—	4	14	76	—	7	1	37	—	24	1	16
—	3	—	91	2	25	—	53	4	223	—	—	—	51	—	5	—	—
1	2	1	14	13	13	—	6	12	38	—	—	6	11	—	—	—	—
—	9	1	143	1	40	—	59	1	122	—	31	—	40	—	43	—	4
19	19	19	37	20	12	—	5	11	39	—	—	11	4	—	1	—	1
—	—	5	23	1	15	—	—	3	30	—	7	—	8	—	8	—	11
1	18	3	48	—	14	—	18	—	64	—	19	—	3	—	8	—	2
—	—	1	19	—	4	—	—	—	8	—	1	1	7	—	6	—	—
—	—	—	9	—	20	—	—	—	24	—	—	—	17	—	—	—	—
—	—	—	—	—	5	—	—	—	3	—	—	—	1	—	—	—	—
—	—	—	1	—	4	—	—	—	8	—	—	—	2	—	—	—	—
—	27	—	202	—	294	—	—	—	235	—	27	1	141	—	10	—	—
—	1	—	5	—	—	—	15	—	—	—	—	—	1	—	11	—	—
—	—	6	309	2	13	—	12	1	17	12	326	2	3	—	65	2	13
—	7	—	117	—	—	—	55	—	—	—	158	—	1	—	24	—	5
—	17	105	310	139	412	—	37	95	365	—	35	97	282	—	59	—	—
3	51	79	197	128	94	—	35	101	166	8	183	13	29	—	36	—	20
14	51	56	289	58	72	1	61	180	424	1	94	66	111	—	87	6	11
4	52	8	302	5	54	8	127	15	347	—	263	4	59	—	144	—	43
6	71	137	492	455	388	—	34	257	602	6	37	392	339	—	45	4	6
5	35	23	237	69	150	—	23	30	310	—	23	24	157	—	34	—	3
—	3	41	80	23	11	—	11	155	239	8	40	23	18	—	19	—	17
4	13	86	197	71	169	—	34	136	246	—	26	136	149	—	36	2	12
—	—	—	460	—	348	—	—	—	689	—	—	—	156	—	2	—	10
—	—	468	—	474	—	—	—	650	—	—	—	198	—	—	—	10	—
11	—	104	7	24	20	—	5	64	6	86	25	—	—	—	—	7	3
71	400	1,242	3,800	1,523	2,259	9	596	1,829	4,462	125	1,319	1,021	1,636	—	678	34	177

Poor Law Medical Out-Relief.

Medical attendance upon sick poor persons in their own homes is provided by the County Council through its staff of district medical officers, of whom there are sixty. Hitherto the salaries and conditions of appointment of these officers have been continued by the County Council on the same terms as were in operation under the late Boards of Guardians. Several officers, however, made strong appeals to the Council for reconsideration of their salaries, and the whole position, therefore, was given careful consideration. It is apparent that in an area such as Middlesex, where the growth of population rapidly converts a sparsely inhabited rural district into a populous urban area, the work of a district medical officer may be completely transformed in character and amount within a very short period, and revision of the terms of his appointment becomes a matter of urgency and justice.

A comparison of the work carried out by each of the sixty district medical officers, based upon the fortnightly returns of their visits, &c., required under the Public Assistance Order, 1930, amply confirmed this hypothesis, a number of officers being found to be substantially underpaid, and in one instance the salary paid being equivalent to less than 6*d.* for each home visit made by the doctor concerned.

Before dealing with individual cases, consideration was given to certain matters of principle and the following conclusions were arrived at: (*a*) A part-time service, operated by doctors engaged in private practice in the same areas as those for which the County Council is responsible for domiciliary medical attendance upon poor persons, is preferable to a whole-time service of doctors engaged solely on poor law medical work; (*b*) The remuneration of doctors by salaries, rather than by fees based upon the actual number of visits paid, consultations, held, &c., is preferable; (*c*) Salaries should be reviewed, and if necessary revised annually, having regard to the extent of work carried out in the previous year. The results of the consideration given to the subject were embodied in the following resolutions adopted by the County Council in July, and approved by the Ministry of Health in December, which refer to the terms of future appointments of district medical officers:—

(*a*) Persons appointed to the position of district medical officer shall be part-time officers and shall be remunerated by way of salary subject to annual review in accordance with any increase or decrease in the duties performed;

(*b*) The salaries of district medical officers shall be of an amount of £25 per annum or multiples thereof, with a maximum of £300 per annum;

(*c*) If in the case of any medical relief district the duties performed by the district medical officer are such as to warrant the payment of a salary exceeding £300 per annum, consideration shall be given to the question of the division of such district into two or more districts and the consequential appointment of an additional officer or officers;

(*d*) District medical officers shall be paid, in addition to their salaries, fees in respect of attendances at confinements in accordance with the first four items of the scale of fees approved by the Ministry of Health under the Midwives Acts, 1902-1926;

(*e*) The conditions at present attaching to the appointment of district medical officer for any medical relief district regarding the supply of medicines and drugs to patients shall, unless otherwise determined, continue in force;

(*f*) Save as provided in the foregoing paragraphs (*d*) and (*e*), no fees or allowances shall be payable to district medical officers in addition to their salaries;

(*g*) Save in exceptional circumstances the appointment of district medical officer shall be terminated on his attaining the age of 65 years.

It was further resolved to increase the salaries of nine of the existing medical officers by a total sum of £680 per annum, subject to the officers affected agreeing to the conditions (*a*) to (*g*) set out above becoming applicable to their appointments. Several district medical officers were considered to be receiving somewhat excessive salaries having regard to the extent of their duties as shown by their fortnightly returns. In view of the fact that they were "transferred" officers and, in the most marked instances, were due to leave the service in the near future, no action was taken.

A suggestion that, in future, all district medical officers should be relieved of the obligation to supply ordinary medicines to their poor law patients, and that a system of the supply of medicines through chemists, similar to that under the National Health Insurance organisation, was not approved owing to the considerable additional expense involved.

During 1933, approximately 25,662 visits were made to patients in their homes by district medical officers, and approximately 32,993 attendances were made by patients at the doctors' surgeries for advice and treatment.

There are many persons receiving domiciliary medical attendance from district medical officers who also are in need of nursing attention, and in the absence of this might require admission to hospital or institution. This nursing attention is provided by the various district nursing associations which operate throughout the County, and the work of the associations in this direction is recognised by the County Council by the payment of annual contributions. Little variation has been made in the contributions to nursing associations paid by the Council from those previously paid by the late Boards of Guardians, and in last year's Report mention was made of an endeavour on the part of the Council to bring the individual contributions into reasonable relation with the varying amounts of work on behalf of poor people carried out by the respective associations. Consideration of the returns of work carried out during the past year furnished to the Council by each association clearly demonstrated that differing interpretations of the meaning of the various headings of the return had been made by the several associations, and that the statistics supplied were not comparable. It was decided, therefore, to make no alteration in the basis of contributions for 1933–34, but to pay the sum of £608 19*s.* as in the previous year. A revised form of questionnaire, however, was drafted, requiring more detailed information as to the work performed by an association, and this was sent to each association for completion in time to enable the revision of contributions, in accordance with the particulars returned, to be considered next year. An intimation also was sent to all associations that the County Council, as a condition of granting a contribution, will require that the association's records shall be subject to inspection by the Council if thought necessary.

Another matter which has received consideration during the year has been the provision of midwives for necessitous women in their own homes. A relieving officer, under his emergency powers, is authorised to call in a midwife in a case of sudden or urgent necessity, if this appears to be the most suitable method by which relief can be given. Apart from cases coming within the above category, it has not been the practice of the Council, under its Poor Law powers, to provide midwives for attendance upon women at home during their confinements, but rather to offer relief in the form of admission to hospital. In the great majority of cases where real necessity exists, the other circumstances obtaining in the home are likely to be such as to render institutional admission for confinement the only suitable and adequate provision. It is possible, however, that in exceptional instances home conditions may be such as to provide suitable surroundings for confinement. In such cases, and after ante-natal examination of the applicant at one of the ante-natal clinics held at the Council's hospitals, the Council have approved of the granting of relief to the applicant by way of the provision of a midwife to attend her in her own home. It is not proposed, however, that a midwife should be provided by the County Council under its Poor Law powers, unless the appropriate maternity and child welfare authority, after consideration of the case, have decided not to undertake this provision under their maternity and child welfare powers. A circular letter was addressed to all maternity and child welfare authorities in the County on the subject, and the majority have expressed their willingness to co-operate with the County Council in the above policy.

A request was received from the Institute of Hospital Almoners, asking whether the County Council could assist a number of trained and certificated almoners, who were awaiting vacancies on hospital staffs, to obtain some practical knowledge of the work of public assistance. It was considered that in the future there may well be development of social services in connection with municipal hospitals, and previous experience in the work of public assistance would be essential in the case of almoners appointed for this purpose. The Council agreed in principle to the proposal, and arrangements were made for the attendance of members of the Institute of Hospital Almoners at certain of the Council's relief offices for the purpose of acquiring practical experience in the administration of public assistance.

GRANTS TO VOLUNTARY HOSPITALS,

Prior to the Local Government Act coming into force it had been the custom of the late Boards of Guardians to make annual grants to certain voluntary hospitals. The total sum so distributed amounted to £409 10*s.*, and this was allocated as follows:—£42 to five of the large London general hospitals, £120 15*s.* to 14 hospitals for the treatment of special diseases also in London, and £246 15*s.* to 18 local hospitals in Middlesex, one in Surrey and one in Berkshire. The extent to which the hospitals concerned relieve the County Council by providing for cases which otherwise would fall to the Council to deal with is difficult to estimate, but it is apparent that at the present time the allocation of grants between individual hospitals bears little or no relation to the amount of assistance afforded to the Council by these hospitals, nor is the list of hospitals itself founded upon any logical basis. Whilst, therefore, the Council decided to renew the grants for the financial year 1933–34, the position is to be reviewed before the next financial year.

Institutional Provision for Mental Defectives.

I am indebted to Dr. E. Laval, Medical Officer under the Mental Deficiency Act, 1913, for the following information as to the extent of the institutional provision made by the County Council:—

Institutions provided for mental defectives by the Middlesex Local Authority—		
Middlesex Colony certified institution (partially erected)	320	
Crauford Home certified institution	117	
Bromley House certified institution	50	
	—	487
Institutions (certified) approved under Section 37 of the Mental Deficiency Act, 1913—		
Enfield House certified institution	50	
Fortescue Villas certified institution	32	
Hillingdon certified institution	29	
	—	111
		598
Cases maintained by the Mental Deficiency Committee in other certified institutions in various parts of the country		697

Welfare of the Blind.

The County Council's scheme for the welfare of blind persons, made under Section 2 (1) of the Blind Persons Act, 1920, provides that the Middlesex Association for the Blind shall be responsible on behalf of the County Council for the keeping of the register of blind persons in Middlesex and for carrying out much of the executive work of promoting the welfare of the blind in the County. A somewhat detailed account of the activities of the Association in this direction was set out in my Annual Report for 1931, and the arrangements referred to therein have continued during 1933. One important alteration in procedure, however, came into operation in September and merits special reference. The Council decided to adopt the detailed form of report and certification, drawn up by the Prevention of Blindness Committee of the Union of Counties Association for the Blind (reproduced in my Annual Report, 1931.) They also agreed that in future, applicants for admission to the register should be submitted to examination by experienced ophthalmic surgeons approved by the Council for this purpose.

Arrangements were put in hand so as to render certain of the accommodation of the Public Health Department of the County Council at 10, Great George Street, Westminster, suitable for the holding of two examination clinics concurrently.

Mr. C. D. Shapland, F.R.C.S., M.R.C.P., and Mr. E. F. King, F.R.C.S., D.O.M.S., the two part-time ophthalmic surgeons, employed by the County Council in connection with the work of school medical inspection and treatment, were appointed examining surgeons for the purpose of the registration of the blind, and arrangements were made for them to attend at Great George Street once a month, or more often if necessary, in order to examine applicants for registration. Each ophthalmic surgeon examines about eight applicants per session, and cases of especial difficulty are seen by both surgeons in consultation. The scheme of examination also includes the home visitation, by one or other of the ophthalmic surgeons, of bedridden or infirm persons who are unable to attend the central clinic.

The first session was held in September and by the end of the year six sessions had been held, and twenty persons examined in their own homes; of the 98 persons submitted to examination 68 were found to be blind within the meaning of the Blind Persons Act, 1920.

Subsequent to the adoption of the above scheme of certification by the County Council, the Ministry of Health issued Circular 1353, dated 5th October, 1933, officially recognising on behalf of the Ministry the Form of certificate drawn up by the Prevention of Blindness Committee, and suggesting to local authorities the advisability of its use in their areas.

Arrangements also have been made for the supply of a copy of each completed report and certificate to a sub-committee of the Prevention of Blindness Committee who, with the approval of the Ministry of Health, have been authorised to abstract and classify on a national basis the causes of blindness revealed by these detailed reports. It is hoped and anticipated that the accurate knowledge thus gained may have far-reaching results in the work of prevention of blindness in the future.

Register of Blind Persons.—The following returns, extracted from a report from the Middlesex Association for the Blind, give information regarding the number of blind persons ordinarily resident in the County.

	31st March, 1932.		31st March, 1933.		31st March, 1934.	
Babies under 5		4		4		4
Children of school age (5–16)		65		58		61
Persons under training		49		56		54
Persons apparently trainable who refuse training or are awaiting vacancies		10		11		9
Employed—						
Workshops	70		72		77	
Home workers	73		80		88	
Elsewhere	163		161		189	
		306		313		354
Trained unemployed		4		4		4
Unemployable		1,120		1,159		1,235
Totals		1,558		1,605		1,721

It will be noted that the total increase in the number of blind persons on the Register on 31st March, 1934, as compared with the number on 31st March, 1933, was 116, whilst the following table shows the increase or decrease in the number of blind persons at different age groups at the close of the same period.

Under 5		None
5–16	plus	3
16–21	minus	13
21–30	plus	14
30–40	plus	10
40–50	plus	16
50–60	plus	22
60–70	plus	23
Over 70	plus	41

In its scheme of the administrative arrangements proposed to be made for discharging the functions transferred to the Council under Part I of the Local Government Act, 1929, the County Council made a declaration to the effect that "all domiciliary assistance to blind persons shall be provided exclusively by virtue of the Blind Persons Act, 1920, and not by way of poor relief."

During the year ended 31st March, 1934, County Council grants towards the cost of surgical appliances, dentures, convalescence, &c., amounted to £124 18*s.* 3*d.*, and 744 blind persons were afforded domiciliary assistance at a cost to the Council of £25,297 19*s.* 10*d.*

Voluntary Hospitals.

In last year's annual report account was given of a conference which had been held between representatives of the County Council and of the Middlesex Voluntary Hospitals Association which had led to the preparation of a series of tables giving detailed information with regard to the voluntary hospitals in Middlesex and the work carried out therein. A further conference was held in 1933 when, *inter alia*, it was decided to revise this information and endeavour to keep it up to date.

As a result, amended particulars were obtained from the various hospitals upon which a revised summary of accommodation was issued in September. These tables are set out on pages 36 to 45.

Reference to Table V on page 43, and comparison with the corresponding table which appeared in last year's report, shows that there has been an increase of 29 in the number of beds provided at the hospitals. Similar comparison of the work done at the individual hospitals reveals some interesting features for, whilst as a whole the number of admissions has increased, this increase is limited to certain hospitals, others showing marked falling-off in the number of patients admitted. It is not possible to compare the totals for all the hospitals as the returns of admissions do not all relate to the same period.

In addition to the hospitals specified in the tables, there are a number of other hospitals situated in Middlesex, not belonging to the County Council, for the treatment of certain specialised conditions; these may be classified as follows :—

(*a*) Hospitals such as Mount Vernon Hospital for Cancer, Northwood; St. Vincent's Orthopædic Hospital, Pinner; Royal National Orthopædic Hospital, country branch, Stanmore. These hospitals, although situated in Middlesex, are not primarily for the treatment of Middlesex residents. The majority of the cases treated therein come from London or other parts of the country.

(*b*) Maternity hospitals provided by local maternity and child welfare authorities, *e.g.*, Willesden, Chiswick and Ealing.

(*c*) Infectious disease hospitals established by the local sanitary authorities of Middlesex.

(*d*) Special hospitals belonging to the London County Council and maintained for the reception of London cases :—

North-Eastern Fever Hospital, Tottenham;

Mental hospitals at Colney Hatch and Hanwell;

Epileptic Colony, Edmonton;

Tuberculosis Hospital, Colindale, Hendon;

Northern Hospital, Winchmore Hill, for convalescent fever, tuberculosis and chronic encephalitis lethargica.

Table

VOLUNTARY

Position—Pub

Hospital.	Freehold Site.	Number of Separate Buildings.	Modern Construction.	Building Materials.	Lift.	Water Supply.	
						Source.	Adequate.
Acton	Yes	Two	Yes	Brick	Yes	Main	Yes
Brentford	Yes	One	Yes	Brick	Yes	Main	Yes
Chiswick	Yes	One	Yes	Concrete	Yes	Main	Yes
Ealing (King Edward Memorial)	Yes	Four	Yes	Brick	Yes	Main	Yes
Enfield War Memorial	Yes	Two	Yes	Brick	Yes (Goods)	Main	Yes
Finchley Memorial	Yes	Two	Yes	Brick	Yes	Main	Yes
Hampton (St. Mary's)	Yes	One	Yes	Brick	No	Main	Yes
Hanwell Cottage	Yes	One	Yes	Brick	No	Main	Yes
Harlington, Harmondsworth and Cranford Cottage	Not stated	One	1884	Brick	No	Well	Yes
Hayes Cottage	Yes	Two	Yes	Brick	No	Main	Yes
Harrow and Wealdstone	Yes	Two	Yes	Brick and concrete	Yes	Main	Yes
Hendon (King Edward Memorial Cottage)	Yes	Two	Yes	Brick	No	Main	Yes
Hornsey Central	999 years	Two	Yes	Part Brick and part temporary	One storey	Main	Yes
Hounslow	Yes	One	Yes	Brick	One storey	Main	Yes
Northwood, Pinner and District	Yes	One	Yes	Brick	No	Main	Yes
Potters Bar Cottage	No	One	No	Brick	One storey	Main	Yes
Staines Cottage	Yes	One	Yes	Brick	One storey	Main	Yes
Teddington, Hampton Wick and District Memorial	Yes	Two	Yes	Brick	No	Main	Yes
Tottenham (Prince of Wales's General)	Yes	Four	1883	Brick	Yes	Main	Yes
Twickenham (St. John's)	Yes	One	Yes	Brick	No	Main	Yes
Uxbridge and District Cottage	Yes	One	Yes	Brick	Yes	Main	Yes
Wembley	Yes	Two	Yes	Brick	Dinner lift	Main	Yes
Willesden General	Yes	Several	Yes	Brick	Wards One storey Nurses Home 3 floors no lift	Main	Yes
Wood Green (Passmore Edwards)	Yes	Three	No	Part brick and part temporary	No	Main	Yes

I.

HOSPITALS.

lic Services, &c.

Sewage Disposal.	Heating.	Lighting.	Fire Precautions.				No. of Wards.		Number of Theatres	O.P. Dept.
			Hose.	Extinguishers.	Escape.	Supervision of Fire Brigade.	Public.	Private.		
Public	Central and fires	Electric	—	+	—	—	4	9	2	Yes
Public	Central and gas fires	Electric	—	+	+	—	6	4	1	Yes
Public	Central	Electric	—	+	—	—	4	—	1	No
Public	Central, coal and gas fires	Electric	+	+	+	+	9	7	1	Casualties and consulting
Public	Central and fires	Electric	+	+	—	—	5	2	1	Casualties only
Public	Central and fires	Electric	+	+	+	+	5	26	2	Casualties only
Public	Central and fires	Electric	—	+	—	—	4	2	1	No
Public	Central elec. and fires	Electric	—	+	+	+	3	1	1	Casualties only
Cesspool	Open fires	Gas	—	+	—	—	2	—	1	No
Public	Central and gas	Electric	—	+	—	—	3	1	1	Casualties and cases recommended by local doctors
Public	Central	Electric	—	+	+	+	8	8	2	Casualties and consulting
Public	Central	Electric	—	+	+	—	6	5	1	No
Public	Central and fires	Electric	—	+	—	+	3	cubicles 24	1	Casualties and special clinics only
Public	Central	Electric	—	+	—	—	3	2	1	Yes
Public	Central	Electric	—	+	—	—	3	9	1	Yes
Public	Central	Electric	+	—	—	—	2	2	1	Yes
Public	Central	Electric	—	+	—	—	3	3	1	Yes
Public	Central	Electric	—	+	—	—	2	2	1	No
Public	Central	Electric	+	+	—	—	11	2	4	Yes
Public	Central and fires	Electric	—	+	—	+	3	1	1	Yes
Public	Central	Electric	—	+	+	—	3	2	1	No
Public	Central	Electric	+	+	—	+	5	8	1	Casualties only
Public	Central	Electric	—	+	+ Nurses' Home	+	4	13	2	Yes
Public	Central and fires	Electric	—	+	—	+	3	6	1	Casualties only

+ Signifies service provided.

TABLE

VOLUNTARY

ADMINISTRATIVE,

Hospital.	Nursing Staff Housed.					Domes	
	Nurses' Home.	Main Building.	Adjoining Houses.	Accommodation Adequate.	Number can be Accommodated.	Nurses' Home.	Main Building.
Acton	Yes	—	—	Yes	35	Yes	—
Brentford	—	Yes	Yes	Yes	11	—	Yes
Chiswick	Yes	—	—	Yes	16	Yes	—
Ealing (King Edward Memorial)	—	Yes	Yes	Yes	68	—	—
Enfield War Memorial	—	Yes	Yes	Yes	25	—	Yes
Finchley Memorial	—	Yes	—	Yes	36	—	Yes
Hampton (St. Mary's)	—	Yes	—	Yes	5	—	Yes
Hanwell Cottage	—	Yes	Yes	Yes	6	—	Yes
Harlington, Harmondsworth and Cranford Cottage	—	Yes	—	No	2	—	Yes
Hayes Cottage	—	Yes	Yes	Yes	7	—	Yes
Harrow and Wealdstone ...	Yes	Yes	Yes	Yes	30	—	Yes
Hendon (King Edward Memorial Cottage)	—	Yes	—	Barely	15	—	Yes
Hornsey Central	Yes	—	—	Yes	25	—	Yes
Hounslow	Yes	—	Yes	Yes	26	—	Yes
Northwood, Pinner and District	—	Yes	—	Yes	14	—	Yes
Potters Bar Cottage	—	Yes	—	Yes	4	—	Yes
Staines Cottage...	—	Yes	—	Yes	10	—	Yes
Teddington, Hampton Wick and District Memorial	—	Yes	—	No	—	—	Yes
Tottenham (Prince of Wales's General)	Yes	Yes	—	Yes	100	—	—
Twickenham (St. John's) ...	Yes	—	Yes	Yes	16	Yes	—
Uxbridge and District Cottage	—	Yes	—	Yes	10	—	Yes
Wembley	—	Yes	—	No	13	—	Yes
Willesden General	Yes	—	Yes	Barely	63	Yes	Yes
Wood Green (Passmore Edwards)	—	Yes	—	Yes	20	—	Yes

II.

HOSPITALS.

&c., ACCOMMODATION.

tic Staff Housed.			Kitchen, &c., Adequate.	Post Office Telephone.	Internal Telephone.	Laundry.	Disinfector.	Ambulance (Hand or Motor).	Mortuary.	Pathological Laboratory.
Adjoining Houses.	Accommodation Adequate.	Number can be Accommodated.								
—	Yes	12	Yes	Yes	Yes	No	No	No	Yes	No
—	—	4	Yes	Yes	Yes	No	No	No	Yes	No
—	Yes	10	Yes	Yes	No	No	No	No	Yes	No
†Yes	Yes	24	Yes	Yes	Yes	No	No	No	Yes	Yes
Yes	Yes	8	Yes	Yes	Yes	No	No	No	Yes	No
—	—	14	Yes	Yes	Yes	No	No	No	Yes	No
—	Yes	3	Yes	—	—	—	—	—	—	—
—	Yes	2	Yes	Yes	No	No	No	No	Yes	No
—	No	1	Yes	Yes	No	No	No	No	Yes	No
Yes	Yes	3	Yes	Yes	No	No	No	Yes	Yes	No
—	No	10	Yes	Yes	Yes	No	No	No	No	No
—	Barely	6	Yes	Yes	Yes	No	No	No	Yes	No
—	Yes	10	Yes	Yes	Yes	No	No	No	Yes	No
—	Yes	12	Yes	Yes	Yes	No	No	No	Yes	No
—	Yes	7	Yes	Yes	Yes	No	No	No	Yes	No
—	Fair	3	Yes	Yes	No	Hand	No	No	Yes	—
—	Yes	3	Yes	Yes	No	No	No	No	Yes	No
Yes	No	—	Yes	Yes	No	No	No	No	Yes	No
Yes	Yes	20	Yes	Yes	Yes	Hand	Yes	Hand	Yes	Yes
—	Yes	4	Yes	Yes	No	No	No	No	Yes	No
—	Yes	5	Yes	Yes	No	No	No	No	Yes	No
—	—	6	Yes	Yes	Yes	No	No	No	No	No
—	Barely	22	Yes	Yes	Yes	No	Yes	No	Yes	Yes
—	Yes	12	Yes	Yes	Yes	No	No	No	Yes	No

† In separate block built for the purpose.

TABLE

VOLUNTARY

CLASSIFICA

ACCOMMODATION IN

Hospital.	Medical.			Surgical.			Ophthalmic.		
	Males.	Females.	Children.	Males.	Females.	Children.	Males.	Females.	Children.
Acton	—	—	—	—	—	—	—	—	—
Brentford	—	—	—	—	—	—	—	—	—
Chiswick	—	—	—	—	—	—	—	—	—
Ealing (King Edward Memorial)	14	14	7	22	16	8	—	—	—
Enfield War Memorial ...	—	—	—	—	—	—	—	—	—
Finchley Memorial	—	—	—	—	—	—	—	—	—
Hampton (St. Mary's) ...	—	—	—	—	—	—	—	—	—
Hanwell Cottage	—	—	—	—	—	—	—	—	—
Harlington, Harmondsworth and Cranford Cottage	—	—	—	—	—	—	—	—	—
Hayes Cottage	—	—	—	—	—	—	—	—	—
Harrow and Wealdstone ...	—	11	—	—	14	—	—	—	—
Hendon (King Edward Memorial Cottage)	—	—	—	—	—	—	—	—	—
Hornsey Central	—	—	—	—	—	—	—	—	—
Hounslow	8	8	7	21	21	7	—	—	—
Northwood, Pinner and District	—	—	—	—	—	—	—	—	—
Potters Bar Cottage ...	—	—	—	—	—	—	—	—	—
Staines Cottage	—	—	—	—	—	—	—	—	—
Teddington, Hampton Wick and District Memorial	—	—	—	—	—	—	—	—	—
Tottenham (Prince of Wales's General)	29	29	18	49	33	13	2	3	2
Twickenham (St. John's) ...	—	—	—	—	—	—	—	—	—
Uxbridge and District Cottage	—	—	—	—	—	—	—	—	—
Wembley	—	—	—	—	—	—	—	—	—
Willesden General	6	8	9	17	18	9	—	—	—
Wood Green (Passmore Edwards)	—	—	—	—	—	—	—	—	—

III.

HOSPITALS.

TION OF BEDS.

PUBLIC WARDS (BEDS).													PRIVATE BEDS.	TOTAL BEDS.
Ear, Nose and Throat.			Gynæcological.	Venereal.		Not Classified.			Total Public Beds.					
Males.	Females.	Children.		Males.	Females.	Males.	Females.	Children.	Males.	Females.	Children.			
—	—	—	—	—	—	17	21	15	17	21	15	11	64
—	—	—	—	—	—	7	7	6	7	7	6	7	27
—	—	—	—	—	—	8	18	17	8	18	17	—	43
—	—	4	10	—	—	3	3	1	39	43	20	7	109
—	—	—	—	—	—	16	16	20	14	16	20	3	56
—	—	—	—	—	—	14	20	12	14	20	12	26	72
—	—	—	—	—	—	6	5	5	6	5	5	2	18
—	—	—	—	—	—	6	6	3	6	6	3	1	16
—	—	—	—	—	—	3	3	1	3	3	1	1	8
—	—	—	—	—	—	6	6	2	6	6	2	1	15
—	—	—	—	—	—	20	—	13	20	25	13	13	71
—	—	—	—	—	—	22	23	—	22	23	—	5	50
—	—	—	—	—	—	12	22	11	12	22	11	4	49
—	—	—	—	—	—	—	—	—	27	27	14	4	72
—	—	—	—	—	—	8	12	6	8	12	6	11	37
—	—	—	—	—	—	5	5	2	5	5	2	—	12
—	—	—	—	—	—	12	5	8	12	5	8	3	28
—	—	—	—	—	—	12	12	4	12	12	4	2	30
3	3	15	12	1	1	—	—	—	84	81	36	25	238
—	—	—	—	—	—	14	14	5	14	14	5	1	34
—	—	—	—	—	—	12	13	—	12	13	—	2	27
—	—	—	—	—	—	14	14	6	14	14	6	9	43
	2	12	5	—	—	—	—	—	26	34	31	15	106
—	—	—	—	—	—	20	26	—	20	26	—	6	52

TABLE IV.
VOLUNTARY HOSPITALS.
SPECIAL DEPARTMENTS.

Hospital.	X-Ray.		Electrical.	Light.	Ophthalmic.	Ear, Nose and Throat.	Dental.	Massage.	Skin.	Gynæcological.
	Diagnostic.	Therapeutic.								
Acton	Yes	—	Yes	Yes	—	—	Yes	Yes	—	—
Brentford	Yes	—	Yes	—	—	—	—	Yes	—	—
Chiswick	Yes	Yes	—	—	—	—	—	—	—	—
Ealing (King Edward Memorial) ..	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Enfield War Memorial	Yes	Yes	Yes	Yes	—	—	—	Yes	—	—
Finchley Memorial	Yes	—	—	Yes	—	—	—	Yes	—	—
Hampton (St. Mary's)	—	—	—	—	—	—	—	—	—	—
Hanwell Cottage	Yes	—	—	—	—	—	—	—	—	—
Harlington, Harmondsworth and Cranford Cottage	—	—	—	—	—	—	—	—	—	—
Hayes Cottage	Yes	—	Yes	—	—	—	—	—	—	—
Harrow and Wealdstone	Yes	—	—	—	—	—	—	—	—	—
Hendon (King Edward Memorial Cottage)	Yes	—	—	Yes	—	Yes	—	Yes	—	—
Hornsey Central	Yes	—	Yes	Yes	—	—	—	Yes	—	—
Hounslow	Yes	—	—	Yes	—	—	—	—	—	—
Northwood, Pinner and District ..	Yes	—	—	Yes	—	—	—	Yes	—	—
Potters Bar Cottage	Yes	—	—	—	—	—	—	—	—	—
Staines Cottage	Yes	—	Yes	—	—	—	Yes	—	—	—
Teddington, Hampton Wick and District Memorial	Yes	—	—	Yes	—	Yes	Yes	Yes	—	—
Tottenham (Prince of Wales's General)	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Twickenham (St. John's)	—	—	Yes	Yes	—	—	—	Yes	—	—
Uxbridge and District Cottage ..	Yes	—	—	—	—	—	—	—	Yes	—
Wembley	Yes	—	Yes	Yes	—	—	—	Yes	—	—
Willesden	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Wood Green (Passmore Edwards)	Yes	—	—	—	—	—	—	—	—	—

TABLE V.

VOLUNTARY HOSPITALS.

STATEMENT OF WORK (IN-PATIENT) CARRIED OUT DURING 1932.

Hospital.	Number of Beds.	Admissions.	Discharges.	Deaths.	Average No. of Beds Occupied.	Average Duration of Stay (Days).	Number of Operations.	
							Major.	Minor.
Acton	62	1,298	1,299	87	56·26	15·85	516	719
Brentford	27	364	358	22	18·76	19·18	32	84
*Chiswick	43	757	?	20	28	?	90	405
Ealing (King Edward Memorial)	109	1,810	1,802	73	96·8	19·6	1,282	
Enfield War Memorial	56	741	736	31	44·65	22·34	291	243
Finchley Memorial	55	865	822	39	44·78	19·04	571	
Hampton (St. Mary's)	18	124	105	7	12	21	24	61
Hanwell Cottage	16	241	235	10	13·6	20·4	116	196
†Harlington, Harmondsworth and Cranford Cottage	17	159	Not stated	Not stated	Not stated	14·3	5	57
Hayes Cottage	15	197	198	9	7·6	14·0	16	111
Harrow and Wealdstone	71	1,276	1,214	56	55·7	16·03	729	309
Hendon (King Edward Memorial Cottage) ..	50	668	646	22	41·3	22·6	224	199
Hornsey Central	48	796	793	38	36·85	16·95	381	188
Hounslow	72	938	873	25	55	21	429	1,029
Northwood, Pinner and District	37	516	493	19	21·6	15·3	117	223
Potters Bar Cottage	12	135	123	8	5	12	27	81
Staines Cottage	28	575	575	28	25	15·91	172	312
Teddington, Hampton Wick and District Memorial	26	462	457	29	22	17	176	192
Tottenham (Prince of Wales's General) ..	201	3,084	2,731	179	177·58	22·33	1,684	2,444
*Twickenham (St. John's)	34	413	403	16	16	14	144	284
Uxbridge and District Cottage	27	431	367	21	20	17	66	133
Wembley	43	694	675	19	27	14·45	425	279
Willesden General	106	2,584	2,605	82	93	13·1	2,098	
*Wood Green (Passmore Edwards)	52	1,003	922	30	41	15	382	540

* Figures relate to work carried out during 1931.

† ,, ,, ,, ,, ,, ,, ,, year ended 31st April, 1933.

Table
VOLUNTARY
St

Hospital.	Medical.						
	Hon. Consultants.					Local Medical Practitioners.	Resident Medical Officers.
	Physicians.	Surgeons.	In charge of Special Depts.	Attend regularly.	Attend only when required.		
Acton	3	5	4	Yes	—	16	2
Brentford	2	4	7	—	Yes	8	—
Chiswick	?	?	?	—	Yes	Yes	—
Ealing (King Edward Memorial)	2	1	10	Yes	—	6	3
Enfield War Memorial	2	1	—	Yes	—	20	—
Finchley Memorial	2	4	6	—	Yes	22	—
Hampton (St. Mary's)	—	—	—	—	—	10	—
Hanwell Cottage	1	3	4	—	Yes	13	—
Harlington, Harmondsworth and Cranford Cottage	—	1	—	—	Yes	Yes	—
Hayes Cottage	1	2	3	—	Yes	3	—
Harrow and Wealdstone	3	2	6	Yes	—	Yes	1
Hendon (King Edward Memorial Cottage)	2	1	5	Yes	—	23	—
Hornsey Central	3	3	6	—	Yes	Yes	—
Hounslow	2	4	7	Yes	—	10	2
Northwood, Pinner and District	2	4	5	—	Yes	13	—
Potters Bar Cottage	1	1	3	—	Yes	3	—
Staines Cottage	1	3	—	—	Yes	5	—
Teddington, Hampton Wick and District Memorial	—	5	1	1	Yes	10	—
Tottenham (Prince of Wales's General)	6	5	10	Yes	—	No	6
Twickenham (St. John's)	3	5	4	—	Yes	12	—
Uxbridge and District Cottage	1	1	1	—	Yes	6	—
Wembley	2	3	9	—	Yes	42	—
Willesden General	2	3	10	Yes	—	5	3
Wood Green (Passmore Edwards)	1	4	4	Yes	—	20	—

* Combined post with Assistant Matron.
† Combined post with Home Sister.

VI.
HOSPITALS.
AFF.

Nursing.										Technical.			
Matron.	Assistant Matron.	Home Sister.	Sister-Tutor.	Theatre-Sister.	Sisters i/c of Special Depts.	Ward Sisters.	Staff Nurses.	Probationers.	Assistant Nurses.	Masseuses.	Pharmacist.	Radiographer. Laboratory Assistants.	
1	1	1	*	1	2	5	1	17	—	2	1	—	—
1	—	—	—	—	—	1	2	3	2	2‖	—	—	—
1	—	—	—	—	—	4	1	10	—	—	—	1	—
1	1	—	1	1	1	7	4	36	—	4	3	3	—
1	1	*	1	*	1	4	4	14	—	—	—	—	—
1	1	—	—	—	—	4	—	12	4	1	1	1‡	—
1	—	—	—	—	—	2	—	—	1	1	—	—	—
1	—	—	—	—	—	1	—	1	3	—	—	1¶	—
1	—	—	—	—	—	—	1	—	—	—	—	—	—
1	—	—	—	—	—	1	—	2	2	—	—	—	—
1	—	—	1	1	—	4	9	13	—	1	—	1	—
1	—	1	—	†	—	3	2	8	—	—	—	—	—
1	—	—	1	1	—	4	1	18§	—	3	1	2	—
1	—	1	†	1	1	4	4	14	—	1	1	—	—
1	—	—	1 Part time	—	—	3	2	8	—	1	—	—	—
1	—	—	—	—	—	—	3	—	—	—	—	—	—
1	—	—	—	—	—	2	1	5	2	1	—	—	—
1	—	—	—	—	—	2	1	4	2	—	—	1	—
1	1	1	1	1	3	9	6	74	—	3	2	1	4
1	—	—	—	—	—	—	3	7	1	1	1	1	—
1	—	—	—	—	—	1	4	5	—	—	—	1	—
1	1	—	—	—	—	2	7	7	2	3	—	1	—
1	1	1	*	1	1	6	12	33	—	3	2	1	—
1	1	1	—	—	—	—	4	7	6	1 Part time	—	1	—

---

‡ Also Theatre Sister.
§ Affiliated University College Hospital as training school.
‖ District Nurses.
¶ Honorary.

Maternity and Child Welfare.

ADMINISTRATION OF THE MIDWIVES ACTS, 1902-1926.

The County Council is the local supervising authority under the Midwives Acts for the entire administrative county with the exception of the Boroughs of Ealing and Willesden and the Urban Districts of Edmonton and Tottenham.

Notification of Intention to Practise.—During 1933, notification of intention to practise midwifery, either temporarily or permanently, in the area for which the County Council is responsible, was received by the County Council from 371 midwives, distributed among the sanitary districts of the County as shown in the following table :—

District.	Total Number of Midwives practising during 1933.	Removed from District during 1933.	Practising Temporarily during 1933.	Number in District end of 1933.
Urban—				
Acton (*Borough*)	13	—	—	13
Brentford and Chiswick (*Borough*) ..	10	—	—	10
Enfield	12	1	—	11
Feltham	6	—	—	6
Finchley (*Borough*)	8	1	—	7
Friern Barnet	5	—	—	5
Hampton	4	—	—	4
Hampton Wick	1	—	—	1
Harrow	11	—	—	11
Hayes and Harlington	14	—	—	14
Hendon (*Borough*)	33	3	4	26
Heston and Isleworth (*Borough*)	23	2	—	21
Hornsey (*Borough*)	14	1	—	13
Kingsbury	24	3	3	18
Ruislip-Northwood	8	2	1	5
Southall-Norwood	12	2	—	10
Southgate (*Borough*)	15	1	1	13
Staines	16	3	—	13
Sunbury	7	2*	1	4
Teddington	3	—	—	3
Twickenham (*Borough*)	9	1	—	8
Uxbridge	11	1	—	10
Wealdstone	7	—	—	7
Wembley	16	2	—	14
Wood Green (*Borough*)	6	—	—	6
Yiewsley and West Drayton	6	—	1	5
Rural—				
Hendon	7	—	—	7
South Mimms	4	—	3	1
Midwives residing outside the County Council's area	66	2	4	60
Totals	371	27	18	326

* One removed from roll.

There has been a slight increase in the total number of midwives practising as compared with 1932, and it may be said that the supply of midwives in the County Council's area is, on the whole, adequate to the demand for their services.

In addition to the 371 midwives who notified their intention to practise, a further 702 women, holding the certificate of the Central Midwives Board, were resident in the area supervised by the County Council under the Midwives Acts. Thirty-four of these were employed in the County Council's hospitals and institutions and, therefore, not subject to supervision under the Midwives Acts ; the remainder were women employed as health visitors or in private or hospital nursing, or other duties, but not engaged in the practice of midwifery.

Qualifications of Practising Midwives.—The qualifications held by the 371 midwives practising in the County Council's area during 1933 may be summarised as follows :—

In possession of the certificate of the Central Midwives Board	357
In possession of certificate of the London Obstetrical Society	7
In possession of a recognised hospital certificate	1
Enrolled by reason of having been in *bona fide* practice previous to the Midwives Act, 1902, coming into operation	6
	371

The number of *bona fide* midwives practising in the County Council's area now amounts to only 1·6 per cent. of the total.

Women not Certified under the Midwives Acts.—Two women, who had been reported to have attended women in childbirth otherwise than under the direction and personal supervision of a qualified medical practitioner, were visited by the Council's inspectors of midwives. In neither case was the evidence sufficiently strong to warrant the institution of legal proceedings, but in one instance a verbal caution was administered and in the other a letter of warning was sent from the Maternity and Child Welfare Committee of the County Council.

Number of Births attended by Midwives.—Each midwife, who notifies her intention to practise in the area for which the County Council is the local supervising authority, is required to make a return at the end of the year of the number of cases attended by her in this area, either in the capacity of midwife or of maternity nurse.

The information is not absolutely complete owing to removals or deaths of midwives, but the error thus introduced is hardly appreciable.

The returns for 1933 show that in the County Council's administrative area under the Midwives Acts, certified midwives conducted 6,049 confinements, and acted as maternity nurses to a further 2,609 women who were attended by doctors. The total number of births in this area was 16,602, and thus the number attended by midwives represents 36 per cent. of the total, and by midwives acting as maternity nurses a further 16 per cent.—a slight increase as compared with the numbers returned in 1932.

The confinements of 194 women, equivalent to 3·2 per cent. of all births attended by midwives, were conducted by *bona fide* midwives, who also acted as maternity nurses in 61 cases (2·4 per cent. of those in which midwives acted in that capacity).

Details as to the births attended by midwives in each sanitary district are shown in the following table :—

BIRTHS ATTENDED BY MIDWIVES RESIDING IN EACH SANITARY AREA.

District.	Births attended by Midwives residing in each District.	Births at which Midwives acted as Nurses.
Urban—		
Acton (*Borough*)	194	124
Brentford and Chiswick (*Borough*)	244	34
Enfield	368	62
Feltham	184	61
Finchley	77	136
Friern Barnet	135	28
Hampton	140	42
Hampton Wick	5	5
Harrow	110	149
Hayes and Harlington	358	127
Hendon (*Borough*)	503	304
Heston and Isleworth (*Borough*)	533	192
Hornsey (*Borough*)	370	208
Kingsbury	433	119
Ruislip-Northwood	65	37
Southall-Norwood	278	60
Southgate	77	59
Staines	222	91
Sunbury	107	38
Teddington	108	48
Twickenham (*Borough*)	261	95
Uxbridge	212	157
Wealdstone	131	51
Wembley	158	162
Wood Green	191	107
Yiewsley and West Drayton	109	11
Rural—		
Hendon	81	59
South Mimms	15	16
Attended by midwives residing outside the County Council's area	250	27
TOTALS	6,049	2,609

Notifications.—The number of notifications received from midwives, in accordance with the Rules of the Central Midwives Board, together with similar figures for the previous four years, are as follows :—

——	1929.	1930.	1931.	1932.	1933.
Notifications of—					
Sending for medical assistance ..	1,940	1,881	1,271	1,377	1,245
Still-birth	135	132	90	97	82
Death of infant	95	87	54	55	44
Death of mother	4	5	2	3	3
Laying out the dead	31	37	34	34	39
Artificial feeding..	55	52	24	39	34
Liability to be a source of infection ..	91	109	82	76	78
Totals	2,351	2,303	1,557	1,681	1,525

The notifications of sending for medical aid may be classified as follows :—

Medical assistance required for conditions arising	1929.	1930.	1931.	1932.	1933.
During pregnancy	257	277	166	174	124
During labour	974	991	723	822	748
During lying-in	184	166	103	79	118
In infant	525	447	279	302	255
Totals	1,940	1,881	1,271	1,377	1,245

Maternal Deaths.—Three notifications were received of the deaths of women while actually under the care of midwives. To these must be added the number of deaths of women, who, while being attended by midwives, became so acutely ill that transfer to a hospital was necessitated, where they subsequently died. Fifteen cases of this nature occurred during the year, making a total of eighteen deaths among women attended by midwives, or a death-rate of 2·97 per 1,000 births attended. The maternal death-rate for all births in the administrative County during 1933 was 4·77 per 1,000.

Enquiries were made into each case, and from these it was ascertained that the causes of death may be classified as follows :—

Complications of labour or puerperium—	
Placenta prævia	3
Eclampsia	1
Obstetric shock	1
Inversion of uterus	2
Sepsis	8
Associated conditions —	
Disease of the respiratory system	2
Disease of circulatory system	1
	18

Puerperal Fever and Puerperal Pyrexia.—Under the Public Health (Notification of Puerperal Fever and Puerperal Pyrexia) Regulations, 1926, notifications were received of 13 cases of puerperal fever and 33 cases of puerperal pyrexia, occurring amongst women who had been attended in their confinements by certified midwives. These numbers represent 11·81 per cent. and 10·51 per cent. respectively of the total notifications received under the Regulations, and are substantially higher than the corresponding figures for the previous year.

Careful enquiry was made into the actual cause of raised temperature in all cases of this condition occurring in the practices of certified midwives and the information obtained indicates that puerperal sepsis was responsible for the rise of temperature in 29 out of the 46 cases notified under the Regulations. This is equivalent to an incidence-rate of puerperal sepsis among midwives' cases of 4·81 per 1,000 births.

The following table records the yearly number of notifications of puerperal fever, &c., and of deaths from puerperal sepsis, both in the County generally and among midwives' cases for the past ten years :—

PUERPERAL FEVER AND PUERPERAL PYREXIA.

Year.	Total Number of Births Registered in the County.	Total Number of cases notified in the County.		Total Number of deaths from Puerperal Sepsis in the County.	Number of Births attended by midwives.	Cases notified in practices of midwives.		Deaths from Puerperal Sepsis amongst midwives' cases.
		Puerperal Fever.	Puerperal Pyrexia.			Puerperal Fever.	Puerperal Pyrexia.	
1924..	21,993	55*	—	34	10,218	16*	—	5
1925..	21,533	62	—	25	10,164	18	—	5
1926..	21,703	63	74‡	30	8,869†	23	17‡	8
1927..	21.123	41	197	24	8,699†	9	46	5
1928..	22,665	63	177	42	8,596†	15	35	6
1929..	23,331	58	188	27	8,655†	14	40	—
1930..	24,840	82*	224*	55	7,727§	16§	41§	6§
1931	25,507 (*a*)	93 (*a*)	216 (*a*)	38 (*a*)				
	17,089 (*b*)	61 (*b*)	143 (*b*)	28 (*b*)	5,837 (*b*)	15 (*b*)	24 (*b*)	3 (*b*)
1932	25,437 (*a*)	88 (*a*)	278 (*a*)	45 (*a*)				
	17,171 (*b*)	55 (*b*)	200 (*b*)	32 (*b*)	5,799 (*b*)	6 (*b*)	23 (*b*)	— (*b*)
1933	24,501 (*a*)	110 (*a*)	314 (*a*)	52 (*a*)				
	16,602 (*b*)	67 (*b*)	211 (*b*)	36 (*b*)	6,049 (*b*)	13 (*b*)	33 (*b*)	8 (*b*)

* These figures relate to periods of 53 weeks.
† Middlesex cases only.
‡ From 1st October, 1926.
§ Excluding those occurring during the last quarter of the year 1930 in the Boroughs of Ealing and Willesden and the Urban Districts of Edmonton and Tottenham.
(*a*) The County.
(*b*) Area for which the County Council is the Local Supervising Authority under the Midwives Acts.

Ophthalmia Neonatorum.—Medical assistance was sought by certified midwives on account of inflammation of, or discharge from, infants' eyes in 107 instances; and in 27 cases the medical practitioners called in notified the condition as ophthalmia neonatorum.

In view of the very serious consequences to sight which may follow if satisfactory treatment is not promptly instituted, all cases of pathological conditions of the eyes occurring in new-born infants are very closely followed up, with a view to ensuring that adequate treatment is obtained and ascertaining whether visual impairment has resulted.

During 1933 no apparent injury to vision resulted in any instance.

Disciplinary Action.—The conduct of one midwife was reported to the Central Midwives Board during December 1933. After due consideration the Board decided to remove the midwife's name from the Roll and to cancel her certificate.

Verbal cautions were administered to certified midwives in seventeen instances by the Council's inspectors of midwives.

Visits of Inspection.—Visits made by the Council's inspectors of midwives during 1933 may be classified as follows :—

Visits to midwives who had notified their intention to practise	866
,, midwives who had not notified	1
,, women not certified under the Midwives Act	3
,, patients' homes in connection with cases of ophthalmia, &c.	42
,, other persons in connection with investigations under the Midwives Acts, etc.	135
,, premises in connection with the registration of nursing homes	325
,, ante-natal clinics and welfare centres	21
,, scattered homes	14
,, homes of foster mothers in connection with investigations under the Children Act	21
Total	1,428

Post-certificate Instruction of Midwives.—The arrangements made by the County Council, in co-operation with London County Council, for the post-certificate instruction of certified midwives practising in their area, followed similar lines to those adopted in previous years.

Payment of Fees to Medical Practitioners.—Under the Rules of the Central Midwives Board, a midwife is required to send for medical assistance in all cases of illness or abnormality in the course of pregnancy, labour, or lying-in, and the doctor sent for is entitled to payment of a fee by the Local Supervising Authority, in accordance with a scale and subject to certain conditions laid down by the Ministry of Health. The Local Supervising Authority has power to recover from the patient or her husband the amount so paid, or such proportion of it as the financial circumstances of the case justify.

In the case of inflammation of, or discharge from, infants' eyes, this right of recovery has been waived by the County Council, in accordance with the suggestion of the Ministry of Health, in order that there may be no temptation for midwives to delay calling in a doctor in cases of apparently trivial affection of the eyes.

The following table furnishes details as to the cost to the County Council of this service during the past five years. It should be noted that while the financial particulars refer to the financial years, the numbers of notifications and claims are those received during the corresponding calendar years.

Fees Paid to Medical Practitioners Under Section 14 of the Midwives Act, 1918.

Year.	A. Number of notifications of sending for Medical Aid.	B. Number of Claims for Fees received.	Percentage of B. to A.	C. Total amount due to Doctors in respect of cases attended by them during financial year.				D. Income from Patients in respect of Doctors' fees.			
					£	*s.*	*d.*		£	*s.*	*d.*
1929 ...	1,940	973	50·2	1929–30	1,314	11	6	1929–30	482	6	3
1930 ...	1,881	1,023	54·4	1930–31	1,188	11	6	1930–31	453	1	6
1931 ...	1,271	724	57·0	1931–32	993	0	0	1931–32	435	1	0
1932 ...	1,377	862	62·6	1932–33	1,163	13	0	1932–33	509	9	5
1933 ...	1,245	766	61·5	1933–34	1,102	13	0	1933–34	536	6	3

Compensation to Midwives.—Section 2 (i) of the Midwives Act, 1926, states that where a midwife has been suspended from practice in order to prevent the spread of infection she shall, if she is not herself in default, be entitled to recover from the local supervising authority such amount by way of compensation for loss of practice as is reasonable in the circumstances of the case.

During the year, 12 claims for compensation were put forward by midwives who had been suspended from practice, either totally or partially, in order to avoid spread of infection. In six instances. suspension or continued suspension was rendered necessary by reason of the fact that bacteriological examination of swabs taken from the throats of the midwives concerned revealed the presence of hæmolytic streptococci. The other six midwives had been nursing women who developed puerperal pyrexia or puerperal fever and these resumed work after satisfactory disinfection had been carried out. The claims were considered by the Maternity and Child Welfare Committee and were deemed to be reasonable having regard to the circumstances of the cases. In all, 129 days were lost by these midwives and sums amounting to £100 19*s.* 0*d.* were paid by way of compensation.

NURSING HOMES.

The County Council administers the Nursing Homes Registration Act, 1927, in the whole of the County with the exception of the Boroughs of Ealing and Willesden and the Urban Districts of Edmonton and Tottenham. In those districts the administration of the Act has been delegated by the County Council to the local sanitary authorities in view of the fact that the supervision of midwives is carried out by the local councils.

At the beginning of the year, 146 nursing homes appeared on the County Council's register. During 1933, applications for registration were received in respect of a further 31 homes. All of these have been inspected by Dr. Back, Assistant County Medical Officer, accompanied by Miss Coleman. Inspector of Midwives. In addition premises were inspected in connection with two further applications which had been received towards the close of the previous year.

The table on page 52 gives particulars of the action taken by the Council in regard to these applications, also information as to homes removed from the register, and the number of homes appearing on the register at the beginning and end of the year respectively.

The following table shows the number of registered nursing homes in each sanitary district for which the County Council is the authority for the administration of the Nursing Homes Registration Act. The figures in brackets indicate the number of homes devoted, either wholly or partly, to the reception of maternity cases.

District.	Number of Nursing Homes on Register at end of 1933.	Approved accommodation (beds) at end of 1933.
Urban—		
Acton (*Borough*)	4 (3)	10
Brentford and Chiswick (*Borough*)	8 (6)	45
Enfield	5 (4)	20
Feltham	2 (1)	7
Finchley (Borough)	11 (6)	58
Friern Barnet	2 (2)	3
Hampton	2 (2)	11
Hampton Wick	0 (0)	0
Harrow	7 (6)	70
Hayes and Harlington	2 (2)	10
Hendon (*Borough*)	17 (14)	98
Heston and Isleworth (*Borough*)	7 (5)	36
Hornsey (*Borough*)	24 (15)	211
Kingsbury	4 (3)	17
Ruislip-Northwood	5 (4)	17
Southall-Norwood	2 (2)	15
Southgate (Borough)	7 (6)	54
Staines	3 (2)	33
Sunbury	3 (0)	30
Teddington	6 (3)	43
Twickenham (*Borough*)	9 (8)	67
Uxbridge	4 (2)	35
Wealdstone	1 (1)	7
Wembley	7 (7)	36
Wood Green (Borough)	2 (2)	12
Yiewsley and West Drayton	0 (0)	0
Rural—		
Hendon	10 (7)	66
South Mimms	0 (0)	0
Totals	154 (113)	1,011

NURSING HOMES.

Year.	On register at beginning of year.		Applications received.	Applications voluntarily withdrawn.	Registrations refused.	Registrations granted.	Applications held over or postponed.	Removed from Register on account of death or removal, or voluntarily.	Registration cancelled.	On register at close of year.	
	Number of homes.	Approved accommodation (beds).								Number.	Accommodation (beds).
1929	154	864	41	5	1	27	14	21	—	160	912
1930	160	912	33	5	4	31	7	58*	—	133	803
1931	133	803	23	5	4	19	2	15	—	137	864
1932	137	864	32	4	—	28	2	19	—	146	918
1933	146	918	31	3	—	28	2	20	—	154	1011

* Including 38 homes transferred to Ealing and Willesden Borough Councils and the Urban District Councils of Edmonton and Tottenham.

Maternity and Child Welfare Scheme.

The County Council is the authority for maternity and child welfare in 12 of the 32 sanitary districts included in the administrative County, namely the Urban Districts of Feltham, Friern Barnet, Hampton Wick, Hayes and Harlington, Kingsbury, Ruislip-Northwood, Staines, Sunbury, Uxbridge and Yiewsley and West Drayton and the Rural Districts of Hendon and South Mimms. In all these districts the County Council is also the authority for elementary education.

The number of mothers and children attending the welfare centres continues to increase, and at certain centres additional sessions have become necessary. In order to carry on the extra work thus involved, an additional assistant medical officer, Dr. Roberts, and two additional health visitors and school nurses have been appointed.

With regard to the centre at Staines it was represented that there were a number of women in the district who found it inconvenient to attend a welfare centre in the afternoon and, accordingly, as an experiment, arrangements were made for a second weekly session to be held in the morning. This second session commenced to operate in December, 1933.

The attendances at the ante-natal clinic held at Townfield Road Council School, Hayes, increased to such an extent that in November it became necessary to hold a weekly session in place of the two sessions per month which formerly had been held.

The following table gives comparative figures for the past five years of the attendances at the centres and the home visiting undertaken by the health visitors, and it will be noticed that there has been a steady increase in average attendance at each session.

Attendances at Welfare Centres—Home Visits by Health Visitors.

—	1929.	1930.	1931.	1932.	1933.
Ante-natal Clinics—					
Number of sessions held	9	97	133	151	176
New cases attending	14	372	536	621	689
Total attendances made	57	692	1,169	1,389	1,502
Welfare Centres—					
Number of sessions held	1,625	2,110	2,188	2,218	2,240
New cases attending—					
Expectant mothers	600	298	329	530	470
Infants under 1 year of age	1,976	2,557	2,893	3,142	3,168
Children (1 to 5 years)	945	1,288	1,225	1,190	1,280
Total attendances made—					
Expectant mothers	2,133	2,170	2,071	2,073	2,069
Mothers attending with infants and children	46,317	60,005	69,750	80,550	90,031
Infants	31,661	41,223	47,516	53,796	60,324
Children (1 to 5 years)	28,974	35,233	39,669	46,154	52,798
Total attendances	109,085	138,631	159,006	182,573	205,222
Average attendance of infants and children each session	37·31	36·23	39·85	45·06	50·50
Home visits made by Health Visitors—					
Ante-natal visits	2,559	2,714	2,617	2,845	2,768
Visits to infants under 1 year	18,432	18,742	20,914	21,684	20,722
Visits to children (1 to 5 years) ..	19,921	20,508	24,870	27,830	27,405
Total home visits	40,912	41,964	48,401	52,359	50,895
Total number of visits to individual families	30,543	32,074	36,597	39,507	39,496

The tables on the following pages give particulars regarding the situation and times of sessions of the Council's ante-natal clinics and welfare centres, with the name of the medical officer in charge of each.

County Council Ante-Natal Clinics.

District.	Address of Centre.	Day and Time of Ante-Natal Session.	Medical Officer in Charge.	First Session held.
Urban—				
Feltham	The Hut, Council School	Last Monday in each month, 9.30 a.m.	Dr. Wilson	30th September, 1929.
Friern Barnet	Whetstone—Congregational Church Hall, Oakleigh Road	Last Wednesday in each month, 9.30 a.m.	Dr. Campbell	27th September, 1929.
Hayes and Harlington	Hayes—Townfield Road Council School	Every Wednesday, 9.30 a.m.	Dr. Shelley	30th September, 1929.
	Harlington—Village Hall, Cherry Lane	Last Monday in each month, 9.30 a.m.	Dr. Moir	24th November, 1930.
Kingsbury	Church Hall, Bacon Lane	Last Friday in each month, 9.30 a.m.	Dr. Roberts	1st June, 1932.
Staines	Ashford—Wesleyan Church School Room, Clarendon Road	Last Wednesday in each month, 9.30 a.m.	Dr. Wilson	25th September, 1929.
	Staines—The Hut, Kingston Road Council School	Last Thursday in each month, 9.30 a.m.	Dr. Cellan-Jones	26th September, 1929.
Sunbury	Congregational Church Hall, Rooksmead Road	Last Thursday in each month, 9.30 a.m.	Dr. Heddy	26th September, 1929.
Uxbridge	109, High Street	Second and fourth Wednesdays in each month, 9.30 a.m.	Dr. Glyn-Jones	Transferred from Uxbridge Urban District Council on 1st April, 1928.
Yiewsley and West Drayton	Yiewsley—Central Hall, Fairfield Road	Last Tuesday in each month, 9.30 a.m.	Dr. Ruddy	24th September, 1929.
	Harmondsworth—The Old School, Moor Lane	Last Monday in each month, 4.0 p.m.	Dr. Cellan-Jones	28th November, 1932.
Rural—				
Hendon	Headstone—St. George's Church Hall	Last Tuesday in each month, 9.30 a.m.	Dr. Burn	31st December, 1929.

COUNTY COUNCIL WELFARE CENTRES.

District.	Address of Welfare Centre.	Day of Meeting (2.30 p.m.).	Medical Officer in Charge.
Urban—			
Feltham	Bedfont—Public Hall, New Road	Monday	Dr. Moir.
	Feltham—The Hut, Council School	Tuesday	Dr. Wilson.
	Hanworth—Village Hall	Friday	Dr. Moir.
Friern Barnet	Congregational Church Hall, Bellevue Road.	Wednesday	Dr. Poole.
	Freehold Social Institute, Hampden Road.	Friday	Dr. Poole.
	Whetstone—Congregational Church Hall, Oakleigh Road.	Tuesday	Dr. Campbell.
Hampton Wick	Baptist Mission, Upper Teddington Road.	Friday	Dr. Heddy.
Hayes and Harlington	Harlington — Village Hall, Cherry Lane.	Tuesday	Dr. Moir.
	Hayes—Queen's Hall, Station Road	Monday Thursday Friday	Dr. Shelley.
	Hayes—Townfield Road Council School	Tuesday Wednesday	Dr. Shelley.
Kingsbury	Church Hall, Bacon Lane	Monday Wednesday	Dr. Roberts.
Ruislip-Northwood	Eastcote—Church Hall	Wednesday	Dr. Hignett.
	Northwood — Methodist Assembly Room, Hallowell Road.	Tuesday	Dr. Hignett.
	Ruislip—Church Room	Thursday	Dr. Hignett.
	South Ruislip—Legion Hall, West End Road.	Monday	Dr. Norrington.
Staines	Ashford — Wesleyan Church School Room, Clarendon Road.	Thursday	Dr. Wilson.
	*Staines—The Hut, Kingston Road Council School.	Tuesday 9.30 a.m. Wednesday	Dr. Cellan-Jones.
	Stanwell—Women's Institute Hall	Monday	Dr. Cellan-Jones.
Sunbury	Ashford Common — The Pavilion, Spelthorne Sports Club.	Wednesday	Dr. Wilson.
	Upper Halliford—Church Hall	Thursday	Dr. Heddy.
	Shepperton—Council School	Tuesday	Dr. Cellan-Jones.
	Sunbury — Congregational Church Hall, Rooksmead Road.	Wednesday	Dr. Heddy.
Uxbridge	Colham Green—Mission Room	Wednesday	Dr. Glyn-Jones.
	Harefield—Memorial Hall	Thursday	Dr. Norrington.
	Hayes End — Salem School, High Road.	Monday	Dr. Glyn-Jones.
	Hillingdon West—St. Andrew's Hall	Thursday	Dr. Glyn-Jones.
	Ickenham—Village Hall	Tuesday	Dr. Norrington.
	Uxbridge—109, High Street	Tuesday Friday	Dr. Glyn-Jones.
Yiewsley and West Drayton	Harmondsworth—Old School, Moor Lane.	Thursday	Dr. Cellan-Jones.
	Yiewsley—Central Hall, Fairfield Road	Tuesday Friday	Dr. Ruddy.
Rural—			
Hendon	Harrow Weald—Memorial Hall	Monday Thursday	Dr. Burn.
	Headstone—St. George's Church Hall	Tuesday Wednesday	Dr. Burn.
	Pinner—Free Church Lecture Hall, Payne's Lane.	Friday	Dr. Norrington.
	Stanmore—Whitchurch Institute, Whitchurch Lane.	Friday	Dr. Roberts.
South Mimms	Potters Bar—Village Hall	Wednesday	Dr. Campbell.
	South Mimms — St. Giles's Parish Room.	Thursday	Dr. Campbell.

* 2 sessions per week held from 19th December, 1933.

The following table gives information as to the cost of fresh and dried milk, &c., issued at the centres during the *financial* year ended 31st March, 1934.

1933-34.	Amount in lbs.	Cost Price.	Contributed by Mothers.	Charge on Scheme.
		£ *s.* *d.*	£ *s.* *d.*	£ *s.* *d.*
Fresh milk	—	3,375 15 1	—	3,375 15 1
Dried milk	29,375	2,472 13 8	1,806 5 9	666 7 11
Virol, cod-liver oil, malt, &c. ..	18,686	887 16 11	621 8 10	266 8 1
	Totals ..	6,736 5 8	2,427 14 7	4,308 11 1

The net cost to the County Council shows an increase of £924 7*s.* 11*d.* on the net cost for the financial year 1932–33. Reference to previous reports will show that there has been a total increase of £2,675 2*s.* 0*d.* in the net cost of the supply of milk, &c., during the past three years. Whilst in part due to the rapid increase in the population and in the number of mothers and infants attending the County Council's welfare centres, essentially this is a reflection of the industrial depression which has been experienced during this period, although the County of Middlesex has been more fortunate in this respect than other parts of the country.

Ophthalmic Treatment.—Two part-time ophthalmic surgeons have been appointed by the Education Committee under the County Council's scheme for the treatment of school children and their services also are available for the treatment of certain cases referred from the welfare centres. If the parents' circumstances permit, they are required to pay the cost price of any spectacles supplied, together with a charge of 1*s.* for examination and fitting.

Dental Treatment.—At the dental clinics established for school children by the Middlesex Education Committee, treatment is provided for expectant and nursing mothers, or children below school age, who are referred on account of oral sepsis or dental caries.

During the financial year, 1933–34, the sum contributed towards the cost of dental treatment, including the supply of dentures, was £298 9*s.* 11*d.*, while the actual cost of the dentures only was £250 19*s.* 1*d.*

The following table gives particulars of the dental work which has been carried out during the year under the Council's Maternity and Child Welfare scheme :—

——	Mothers.	Children under 5 years of age.
Number inspected	557	369
„ of attendances made	1,842	641
„ treated	432	315
„ extractions (gas)	1,372	530
„ „ (local anæsthetic) ..	1,307	375
„ other treatment (fillings, &c.)	764	632
„ dentures completed	241	—

There is also in operation an agreement between the County Council and the local authorities concerned, whereby the dental treatment of expectant and nursing mothers and of children below school age attending welfare centres in Southall-Norwood and Southgate, and of children only in Teddington, is undertaken at the County Council's dental clinics.

Treatment of Ophthalmia Neonatorum.—Arrangements are in force whereby infants suffering from ophthalmia neonatorum may be admitted to St. Margaret's Hospital, Kentish Town, one of the hospitals included in the Special Hospitals Service of the London County Council. During 1933, 24 cases of ophthalmia neonatorum were notified in the area of the County for which the County Council is the authority for maternity and child welfare. Of these, 10 related to infants born in the maternity hospital belonging to the Willesden Borough Council, which is situated in Kingsbury.

Of the remaining 14 cases, eight were treated in hospital and six at home. One infant died from marasmus, the remainder made a satisfactory recovery and no apparent injury to vision resulted in any case.

Treatment of Puerperal Fever and Puerperal Pyrexia.—On twelve occasions during the year the advice of Mr. J. M. Wyatt, F.R.C.S., the County Council's consultant, was sought, and on three of these he visited the patients concerned in consultation with their own medical attendant. Twelve women were admitted under arrangement with the London County Council to wards at the North Western Hospital reserved for the treatment of puerperal infection, under the care of Mr. Wyatt. Of this number, four died and the remaining eight have recovered.

Provision of Midwives.—The County Council employs two whole-time midwives who practise in the districts of Harefield and Ruislip-Northwood, and in Yiewsley and West Drayton.

Grants also are made to certain nursing associations which provide midwifery services. The South Mimms, Potters Bar and Bentley Heath Nursing Association, which was formed in 1931, received a grant of £50, and grants of £20 each were given to nursing associations in Kingsbury and in Stanwell.

Central Consultative Ante-natal Clinic.—Ten sessions of this clinic, which is under the direction of Dr. J. S. Fairbairn, F.R.C.P., were held in the Public Health Department, 10, Great George Street, Westminster, during the year. Thirty-one new cases were referred to the clinic for examination, and in all forty attendances were made.

Three women were referred to St. Thomas's Hospital for X-ray examination of the presentation of the fœtus, and one for bacteriological examination. Four women were admitted to the hospital for their confinements and each was safely delivered of a healthy living child. One woman was admitted for a short period in order that rectification of a malpresentation might be carried out under anæsthesia, and was subsequently safely delivered at home. Two other women had malpresentations rectified at the ante-natal clinic.

Investigation of Maternal Deaths.—During the course of the year Dr. Back carried out investigations into the deaths of nineteen women who died in childbirth in the districts in Middlesex in which the County Council has agreed to undertake this enquiry. In each instance a detailed report was forwarded to the Ministry of Health.

CHILDREN AND YOUNG PERSONS ACTS.

Since April, 1930, the County Council has been responsible for the administration in its maternity and child welfare area of Part I of the Children Act, 1908, which deals with infant life protection. The County Council's health visitors have been appointed infant protection visitors, and by home visitation exercise supervision over children in the care of foster parents. On January 1st, 1933, the Children and Young Persons Act, 1932, came into operation and introduced certain amendments to the principal Act. The most important alterations are :—

(1) Written notice to be given to the local authority not less than seven days before reception in the case of the first infant, and not less than 48 hours in the case of subsequent infants.

(2) The extension to the age of nine years of the period during which young children are subject to the provisions of Part V of the Act.

(3) The cancellation of the power of the County Council as local authority under the Act to issue orders for the removal of infants to a place of safety, with the transference of this function to local courts of summary jurisdiction.

At the beginning of 1933 the County Council's register contained the names of 141 foster parents having in their care 172 children. During the year, 107 additional foster parents notified their intention of undertaking for reward the nursing and maintenance of infants, while 86 foster parents notified that they had ceased to have infants in their care. Notifications of the reception of 231 infants, of the removal of 174 from the care of foster parents and of the death of two infants, were received. During the year the Council's health visitors, in their capacity of infant protection visitors, paid 90 first visits and 1,024 subsequent visits to foster parents.

Inspection and Supervision of Food.

The acts and regulations dealing with the supervision of food supplies which are administered by the County Council deal with (*a*) certain powers and duties connected with the production of milk and (*b*) adulteration of food.

MILK PRODUCTION.

(1) *The Milk and Dairies* (*Consolidation*) *Act*, 1915.—Throughout the year officers of the Public Control Department of the County Council continued to collect samples of milk, to an average number of six per week, from Middlesex producers or retailers. These samples were examined for the presence of living tubercle bacilli by animal inoculation at the Lister Institute of Preventive Medicine. In all, 294 samples were submitted: in 7 instances no definite result was obtainable owing to the premature death, from some intercurrent infection, of the guinea-pigs inoculated, but living tubercle bacilli were found in 25 of the remaining 287 specimens—equivalent to 8·7 per cent.

The object of this routine sampling is two-fold :—firstly, in order to estimate in some measure the incidence of tubercle-infected milk on sale in the County; and, secondly, with a view to tracing to its source any infected specimen discovered and thus supplementing the extremely useful work of routine veterinary inspection which is being carried on in Middlesex and elsewhere. It must be pointed out, however, that a large proportion of the milk consumed in Middlesex is a mixed supply, derived from many farms, and the task of tracing to its origin an infected sample from such a supply is often an impossibility. In order, therefore, that the sampling system shall achieve the most useful results, specimens are collected, for the most part, from single or small combinations of sources. The following table shows the yearly results since routine sampling and examination for tubercle bacilli at the Lister Institute were introduced in 1927, but, for the reasons indicated above, the figures may not be entirely representative of the County milk supply as a whole.

Year.	Number of samples for which a definite result was obtained.	Number containing living tubercle bacilli.	Percentage of tubercle-infected milk.
1927	272	28	10·3
1928	228	23	10·1
1929	277	21	7·6
1930	272	22	8·1
1931	256	14	5·5
1932	266	31	11·6
1933	287	25	8·7

It will be noted that after a progressive decline in the incidence of tubercle-infected milk for five years, the proportion rose sharply in 1932 and has remained at an unsatisfactorily high level in 1933. It was pointed out in last year's report that the depression in the agricultural industry, which probably reached its lowest level in the financial crisis of 1931, resulted in such low prices for fat cattle that farmers all over the country, instead of fattening and selling their older cows to the butcher, had continued to breed from these animals and use them as milkers. As the incidence of bovine tuberculosis increases with age and as the proportion of aged milch cows in dairy herds has risen, the higher percentage of tubercle-infected milk on the market may be explained.

Of the 287 samples taken, one was of " certified " milk, two were of " Grade A, T.T. " milk and five of " Grade A " milk. In none of these designated milks were tubercle bacilli detected.

Of the 25 infected milks found in 1933, 12 were stated to have been produced in Middlesex, and 13 in other counties. Diseased animals were traced on 12 of the farms concerned (5 in Middlesex, 7 in other counties) and 14 cows were slaughtered by the County Councils under the powers conferred by the Tuberculosis Order, 1925. In the case of the 13 remaining farms, no evidence of bovine tuberculosis could be detected on veterinary examination of the herds, but in two instances it was found that 7 cows in poor condition had been disposed of for slaughter in the interval between the taking of the samples and the date, some weeks later, when the results of the biological examinations were received.

In Willesden for many years past the Borough Council have carried out routine examination for tubercle bacilli of milk retailed within the borough. The Medical Officer of Health informs me that during the year, 52 samples of milk, taken from Willesden retailers, were examined for the presence of tubercle bacilli by animal inoculation. Seven of the samples, all of which had been produced outside Middlesex, were found to contain living tubercle bacilli (13·5 per cent.).

(2) *The Milk and Dairies Order*, 1926.—Mr. Sidney Villar, F.R.C.V.S., the County Council's whole-time veterinary inspector under the above Order retired on 31st December, 1932, and his successor, Mr. R. Wooff, M.R.C.V.S., did not take up his appointment until 17th January, 1934. No routine veterinary inspection of dairy herds, therefore, was carried out in Middlesex during 1933.

(3) *The Milk (Special Designations) Order*, 1923.—Licences for the production of "Certified" milk were granted by the Ministry of Health to four Middlesex milk producers during the year; the licensed farms being situated in the Borough of Finchley and the Urban Districts of Enfield, Ruislip-Northwood and Wembley.

Three dairymen were granted licences by the County Council to produce "Grade A" milk; the farms concerned are situated in Ruislip-Northwood and Hendon Rural District (2).

(4) *The Tuberculosis Order*, 1925.—This Order of the Ministry of Agriculture is administered by the Diseases of Animals Sub-Committee of the County Council. The Clerk of the County Council informs me that during 1933, visits were made by the Council's part-time veterinary surgeons to 83 premises on which bovine tuberculosis had been reported or was suspected. Veterinary examination of 1,591 animals was carried out and 76 animals were found to be suffering from tuberculosis as defined by the Order and were slaughtered. A sum of £564 3*s*. 9*d*. was paid by the County Council by way of compensation to the owners of the cows slaughtered (75 per cent. of this amount is repayable by the Ministry of Agriculture).

ADULTERATION.

The acts and regulations dealing with adulteration of food are administered by the Public Control Department of the County Council. I am indebted to Mr. R. A. Robinson, Barrister-at-Law, Chief Officer of the Public Control Department, for the information regarding this branch of work.

Food and Drugs (Adulteration) Act, 1928.—In the following table are set out particulars of samples submitted to the County Analyst by officers of the Public Control Department during 1933:—

—	Number of Samples Examined.	Number of Samples Adulterated or not up to Standard or Description.
Apples	1	—
Brandy	1	—
Bread	1	—
*Bread and Butter	1	1
*Butter	31	1
Chocolates	1	—
*Cream	1	—
Eau de Cologne	1	—
*Eggs	1	1
Flour, self-raising	2	1
Hake	46	45
*Jam	1	—
*Lard	3	—
*Lemon Curd	1	—
Lemon Sole	21	21
*Milk..	1,310	63
*Milk, sterilised	39	5
Oats, rolled	1	—
Rum	1	—
*Sausages	1	—
*Sweets	4	—
Vinegar	1	—
Whisky	1	1
Totals	1,471	139

In addition to the above, nearly 2,500 samples were examined during the year by officers of the Public Control Department.

During the year, 87 prosecutions were instituted in respect of the following articles of food:— Butter, 1; hake, 47; lemon sole, 20; milk, 15; plaice, 2; sausages, 1; whisky, 1.

Public Health (Preservatives, &c., in Food) Regulations, 1925 *and* 1927.—In the foregoing table, articles marked * were also examined for the presence of preservatives.

Public Health (Dried Milk) Regulations, 1923 *and* 1927.

Public Health (Condensed Milk) Regulations, 1923 *and* 1927.

No action was taken under these Regulations during the year.

Infectious Diseases.

NOTIFIABLE DISEASES OTHER THAN TUBERCULOSIS.

SMALLPOX.—Smallpox continued markedly to diminish in incidence throughout the country during 1933, and the figures are now approaching post-war normality. As has been indicated in previous reports the mild form of smallpox (variola minor) made its appearance in this country in the Midlands whence it involved parts of the North of England and South Wales. It was some years before the disease assumed epidemic form in the South of England and the London area, but latterly smallpox has almost disappeared from other parts of the country, and the great majority (over 97 per cent.) of the cases which occurred in 1933 were among persons resident in and around London. Of the 631 cases notified during the year in England and Wales, 530 occurred in the County of London (84 per cent.). The following table exemplifies these facts:—

Year.	In England and Wales.	In London and neighbourhood.*
	Cases.	Cases.
1922	973	78
1923	2,485	21
1924	3,765	32
1925	5,365	19
1926	10,146	9
1927	14,767	29
1928	12,420	517
1929	10,967	3,475
1930	11,491	6,954
1931	5,665	2,552
1932	2,070	1,480
1933	631	613

* Including the Counties of Middlesex, Surrey, Essex, Kent, Berkshire (nil in 1933), Buckinghamshire (nil in 1933) and the associated County Boroughs.

So far as the County of Middlesex is concerned, 12 cases of smallpox occurred during 1933, as compared with 25 cases in 1932, 14 cases in 1931, 271 cases in 1930 and 80 cases in 1929. All were of the mild variety, known as variola minor, and no deaths occurred. The cases were distributed throughout the county as follows:—Enfield, 2; Hendon Borough, 1; Southgate, 4; Tottenham, 3; and Willesden, 2.

With regard to the vaccinal condition of the 12 Middlesex residents who contracted the disease, 7 were unvaccinated or had been vaccinated for the first time after exposure to infection and too late to afford protection. The remaining 5 cases had been vaccinated in infancy; four of these were persons over the age of 45 years, whilst one case, a girl of 19 years was reported to have been unsuccessfully revaccinated on two or three occasions.

SCARLET FEVER.—Scarlet fever was unduly prevalent during 1933, the number of cases notified in Middlesex being 6,315, an increase of 1,522 above the figure for the previous year. The incidence-rate for 1933 was 3·59 per 1,000 persons living, which is the highest rate recorded since 1922. The sanitary districts in which the incidence of scarlet fever was greatest were: Hayes and Harlington (6·30), Acton (6·27), Harrow (6·03) and Brentford and Chiswick (5·97). The number of persons dying from the disease was 33 (of these 30 were children below the age of 15), corresponding to a case-mortality rate of 0·52 per cent. and a death-rate from scarlet fever of 0·02 per 1,000 persons living. A similar rate was recorded in London, in England and Wales and in the Great Towns.

DIPHTHERIA.—The low rate of incidence of diphtheria was maintained during 1933, and for the second year in succession the rate was below 1 per 1,000 of the population. During the year, 1,666 cases were notified, equivalent to an incidence rate of 0·95 per 1,000 persons living. Ninety-five deaths from diphtheria occurred (90 were children below the age of 15), corresponding to a case-mortality rate of 5·70 per cent. The death-rate from diphtheria for Middlesex was 0·05 per cent.; for England and Wales 0·06 per cent., and for London and the Great Towns 0·08 per cent.

ENTERIC FEVER.—During the year 75 cases of typhoid and paratyphoid fever were notified, with five deaths. These figures correspond to a case rate of 0·04, a death-rate of 0·003 per 1,000 persons living and a case-mortality rate of 6·7 per cent.

Of the 75 cases, 35 occurred during the third quarter of the year.

The following table gives statistical information regarding scarlet fever, diphtheria and enteric fever in each district of the county.

County and District Rates, 1933.

Scarlet Fever, Diphtheria, Enteric Fever.

District.	Number of cases notified, with case-rate per 1,000 living. Number of deaths recorded, with death-rate per 1,000 living.											
	Scarlet Fever.				Diphtheria.				Enteric Fever.			
	Cases Notified.		Deaths Recorded.		Cases Notified.		Deaths Recorded.		Cases Notified.		Deaths Recorded.	
	No.	Rate.	No.	Rate.	No.	Rate.	No.	Rate.	No.	Rate.	No.	Rate.
Urban—												
Acton (*Borough*)	441	6·27	4	0·06	160	2·28	23	0·33	1	0·01	1	0·01
Brentford and Chiswick (*Borough*)	376	5·97	2	0·03	93	1·48	9	0·14	1	0·02	—	—
Ealing (*Borough*)	474	3·68	7	0·05	67	0·52	7	0·05	4	0·03	—	—
Edmonton ..	369	4·26	1	0·01	72	0·83	4	0·05	3	0·03	—	—
Enfield	248	3·45	2	0·03	45	0·63	2	0·03	3	0·04	—	—
Feltham	32	1·79	1	0·06	6	0·34	—	—	1	0·06	1	0·06
Finchley (*Borough*)	158	2·58	—	—	21	0·34	1	0·02	4	0·07	—	—
Friern Barnet ..	56	2·33	1	0·04	6	0·25	—	—	1	0·04	—	—
Hampton ..	30	2·25	—	—	7	0·53	1	0·08	—	—	—	—
Hampton Wick..	7	2·40	—	—	2	0·68	1	0·34	—	—	—	—
Harrow	191	6·03	2	0·06	38	1·20	1	0·03	8	0·25	—	—
Hayes and Harlington	181	6·30	1	0·03	20	0·70	2	0·07	1	0·03	—	—
Hendon (*Borough*)	440	3·45	—	—	157	1·23	4	0·03	7	0·05	1	0·01
Heston and Isleworth (*Borough*)	393	4·65	4	0·05	50	0·59	2	0·02	5	0·06	—	—
Hornsey (*Borough*)	242	2·52	—	—	44	0·46	2	0·02	3	0·03	—	—
Kingsbury ..	63	2·54	—	—	11	0·44	—	—	1	0·04	—	—
Ruislip-Northwood	22	1·17	—	—	11	0·59	1	0·05	1	0·05	—	—
Southall-Norwood	226	5·05	1	0·02	23	0·51	1	0·02	2	0·04	1	0·02
Southgate (*Borough*)	91	1·55	—	—	23	0·39	2	0·03	1	0·02	—	—
Staines	110	4·68	—	—	41	1·74	1	0·04	1	0·04	—	—
Sunbury	16	1·14	—	—	14	0·99	—	—	—	—	—	—
Teddington ..	70	3·02	—	—	14	0·60	2	0·09	1	0·04	—	—
Tottenham ..	550	3·56	1	0·01	194	1·25	10	0·06	5	0·03	—	—
Twickenham (*Borough*)	92	2·21	1	0·02	29	0·70	1	0·02	—	—	—	—
Uxbridge ..	105	3·08	1	0·03	21	0·62	2	0·06	1	0·03	—	—
Wealdstone ..	92	3·10	—	—	6	0·20	—	—	2	0·07	—	—
Wembley ..	152	2·58	2	0·03	34	0·58	—	—	3	0·05	—	—
Willesden (*Borough*)	694	3·71	1	0·01	392	2·10	11	0·06	13	0·07	1	0·01
Wood Green .. (*Borough*)	192	3·54	—	—	23	0·42	1	0·02	—	—	—	—
Yiewsley and West Drayton	44	3·01	—	—	8	0·55	1	0·07	—	—	—	—
Rural—												
Hendon	118	2·02	1	0·02	31	0·53	3	0·05	2	0·03	—	—
South Mimms ..	40	5·36	—	—	3	0·40	—	—	—	—	—	—
THE COUNTY ..	6,315	3·59	33	0·02	1,666	0·95	95	0·05	75	0·04	5	0·003

The above statistics (except the rates) were supplied by the Registrar-General.

DYSENTERY.—Thirteen cases of dysentery were notified in Middlesex during 1933. The number of cases notified in previous years were: 36 in 1932, 6 in 1931, 13 in 1930, 40 in 1929, 6 in 1928, and 2 in 1927. Of the 13 cases, 8 were notified in the Urban District of Southall-Norwood, and occurred at the London County Council's Mental Hospital, Hanwell.

CEREBRO-SPINAL FEVER.—Thirty-one cases were notified during the year, as compared with 44 cases in 1932, 34 in 1931, and 19 in 1930. Fourteen notifications were recorded in the first quarter of the year. Eighteen cases terminated fatally. Twelve of the deaths were of children below the age of 15 years.

PNEUMONIA.—The number of cases of *acute primary pneumonia* notified in 1933 was 2,010, an increase of 149 cases compared with the previous year. More than half the total number of cases occurred during the first quarter of the year at a time when Middlesex in common with the rest of the country was suffering from an epidemic of influenza. In the months of January and February, during five consecutive weeks over a hundred cases per week were notified. The number of deaths from all forms of pneumonia during 1933 was 1,118, corresponding to a death-rate from the disease of 0·64 per 1,000 persons living, compared with 1,044 deaths and a death-rate of 0·61 in 1932.

ENCEPHALITIS LETHARGICA.—Lethargic encephalitis is becoming less and less common and cases of this disease are now seldom seen in the acute stage of the illness. During the year eleven new cases were notified in Middlesex; sixteen deaths, however, were recorded. The reason for the discrepancy is two-fold. First, owing to difficulty in diagnosis some cases are not discovered until after death. Secondly, although few fresh cases are now occurring there are many unfortunate people who survived the acute stage of the illness, contracted perhaps at a time the disease was fairly prevalent, soon after the War, and who since have developed an incurable condition of chronic encephalitis. Some of the deaths now being recorded are the sequels of an infection contracted many years ago.

ACUTE POLIOMYELITIS.—Forty-five cases were notified, eight of which ended fatally. In previous years the notified cases were: 26 in 1932, 20 in 1931, 19 in 1930, 13 in 1929, 14 in 1928, 26 in 1927 and 45 in 1926.

ACUTE POLIO-ENCEPHALITIS.—Three cases were notified, and two deaths were recorded by the Registrar-General. During the preceding five years the numbers of notifications were: 4 in 1932, 0 in 1931, 7 in 1930, 5 in 1929, 2 in 1928.

MEASLES.—The compulsory notification of measles is operative in only a few districts in the County, so that accurate information of the incidence of the disease is not available. The mortality from measles is, however, an indirect measure of its incidence, and the following table shows the annual number of deaths from measles in Middlesex during the past 10 years:—

Year.	Deaths.	Year.	Deaths.
1924	191	1929..	6
1925	27	1930..	135
1926	160	1931..	16
1927	4	1932..	133
1928	216	1933..	6

The biennial fluctuation, which is characteristic of measles, is well shown.

OPHTHALMIA NEONATORUM.—The number of notifications received during 1933 was 116, or a case-rate of 4·73 per 1,000 births. This rate does not differ significantly from those recorded during the past few years.

PUERPERAL FEVER AND PUERPERAL PYREXIA.—Notifications of 110 cases of puerperal fever (4·5 per 1,000 births) and 314 cases of puerperal pyrexia (12·8 per 1,000 births) were received during 1933. The corresponding figures for the year 1932 were as follows:—

Puerperal fever, 88 notifications (3·5 per 1,000 births).
Puerperal pyrexia, 278 notifications (10·9 per 1,000 births).

This high incidence of puerperal infection appears to be associated with the prevalence of streptococcal infection evidenced by the large number of cases of scarlet fever and erysipelas which occurred during 1933. As has been suggested previously in this report, the epidemic of influenza early in the year with its concomitant respiratory infections may also have influenced the incidence of puerperal sepsis by favouring droplet propagation of infection.

The number of deaths which occurred in the County during 1933 due to puerperal sepsis was 52, equivalent to a maternal mortality rate from sepsis of 2·12 per 1,000 live births. With the exception of the year 1930 when the rate from this cause rose to 2·21, the figure recorded for 1933 is the highest for over 30 years.

Some observations on maternal mortality are contained on pages 9 to 13 of this Report.

Erysipelas.—During the last few years the incidence of erysipelas has been considerably higher than formerly was the case. In 1933 the number of cases notified, viz., 703, was the highest on record, and showed an increase of 130 cases as compared with 1932.

For the preceding years the figures were: 1932, 573; 1931, 519; 1930, 568; 1929, 521; 1928, 525; 1927, 351; 1926, 395.

Malaria.—Eight cases of malaria were notified; in seven instances infection was considered to have been contracted abroad.

Malta Fever.—One case was reported, occurring in the Rural District of Hendon.

Cholera, Plague, Relapsing Fever, Typhus Fever, Continued Fever, Anthrax.—No cases of any of these diseases were notified.

Public Vaccination.

The table on page 65 has been compiled from annual returns of Vaccination Officers, and relates to births registered during the year 1932, the figures for that year being the latest available.

The results as at 31st January, 1934, may be summarised as follows:—

Births registered during 1932	22,417*
Infants successfully vaccinated	9,667
Infants insusceptible to vaccination	118
Infants who had had smallpox	Nil
Statutory declarations of conscientious objection	8,434
Infants died unvaccinated	873
Vaccination postponed by medical certificates	286
Removals to other districts	921
Removals to places unknown, &c.	1,131
Otherwise unaccounted for	987

* This figure does not include re-registered births or cases of children born in other districts.

Thus, of 22,417 children whose births were registered in Middlesex in 1932, 873 died unvaccinated. Of the remainder, 9,785 (43·65 per cent.) were successfully vaccinated or were certified to be insusceptible to smallpox or vaccination. Statutory declarations of conscientious objection were made in respect of 8,434 infants (37·62 per cent.), whilst 3,325 infants were not vaccinated for various reasons (postponement on medical certificate, removals, &c.).

Vaccinations Performed by Public Vaccinators during 1933.

Vaccination District or Poor Law Institution.	Vaccinations.			Successful re-vaccinations.
	Under 1 Year.	1 Year and upwards.	Totals.	
Northern Area—				
North Middlesex Hospital and Edmonton House	—	—	—	—
Chase Farm Schools	3	—	3	—
Edmonton (North)	173	14	187	4
Edmonton (South)	121	14	135	1
Enfield (Cooper's Lane) and Enfield Town	107	10	117	6
Enfield Highway and Ponders End	86	—	86	—
Tottenham (High Cross)	85	7	92	3
Tottenham (Lower, East)	89	15	104	2
Tottenham (Lower, West)	47	7	54	3
Tottenham (West Green)	207	36	243	12
North-Eastern Area—				
Finchley (North)	31	6	37	3
Finchley (South)	14	2	16	2
Friern Barnet	9	4	13	3
Highgate	58	3	61	5
Hornsey (Harringay)	174	17	191	4
Southgate and Enfield (Cockfosters)	119	21	140	40
South Mimms	18	—	18	—
Winchmore Hill	56	2	58	—
Wood Green	161	8	169	7
Central Area—				
Burnt Oak and Watling Estate	112	10	122	4
Child's Hill	36	2	38	10
Edgware, Little Stanmore and Lower Hale	71	5	76	3
Erskine Hill Residential School (L.C.C.)	—	—	—	—

Vaccination District or Poor Law Institution.	Vaccinations.			Successful re-vaccinations.
	Under 1 Year.	1 Year and upwards.	Totals.	
Central Area—continued.				
Golders Green and Hampstead Garden Suburb ..	54	3	57	3
Great Stanmore and Harrow Weald	37	6	43	1
Harrow-on-the-Hill	70	7	77	14
Hendon (Central) and Hendon (West) (part) ..	204	6	210	8
Kingsbury	77	7	84	3
Mill Hill (part)	47	1	48	26
Pinner	55	3	58	12
Redhill County Hospital and Institution	261	3	264	4
Wealdstone	74	22	96	6
Wembley	133	11	144	8
Willesden Area—				
Central Middlesex County Hospital	5	7	12	1
Harlesden	425	29	454	46
Kilburn	496	29	525	12
Western Area—				
Acton	256	17	273	10
Children's Home, Hillingdon (Bartram Lodge) ..	—	—	—	—
Cowley and Hillingdon	267	11	278	—
Ealing (part) and West Twyford	128	11	139	2
Hanwell and Ealing (part), Greenford and Perivale	244	10	254	8
†Hanwell Residential School (L.C.C.)	—	—	—	—
Harefield	51	—	51	1
Hayes	54	11	65	2
Hillingdon County Hospital	—	2	2	5
Northolt	29	—	29	—
Norwood	210	13	223	3
Ruislip	84	2	86	7
Uxbridge and Ickenham	12	—	12	1
Yiewsley and West Drayton..	55	9	64	—
Southern Area—				
Ashford	90	8	98	2
Ashford Residential School (L.C.C.)..	—	—	—	—
Bedfont, Feltham and Hanworth	124	5	129	1
Brentford and Brentford End	148	22	170	11
Chiswick	231	27	258	4
Cranford, Harlington and Harmondsworth (Sipson and Heathrow).	42	1	43	—
Hampton	41	1	42	2
Hampton Hill (S. James)	13	—	13	3
Hampton Wick	16	—	16	1
Harmondsworth (Longford) and Stanwell	55	2	57	1
Heston, Isleworth (part)	277	15	292	9
Isleworth (part)	203	13	216	6
Laleham and Staines	43	6	49	1
Shepperton and Littleton	43	—	43	—
Staines Institution	3	—	3	—
Sunbury	34	6	40	—
Teddington	141	8	149	11
Twickenham	253	12	265	9
Warkworth House, Isleworth	5	4	9	—
West Middlesex County Hospital	—	—	—	1
Totals	6,867	533	7,400	357

† Closed June, 1933.

RETURN OF VACCINATION OFFICERS RELATING TO BIRTHS REGISTERED IN 1932.

Registration Sub-Districts comprised in the Vaccination Officer's District.	Name of Vaccination Officer.	Number of Births registered from 1st January to 31st December, 1932.	Number of these Births duly entered by 31st January, 1934, in Vaccination Register, viz. :—					Number of these Births which, on 31st January, 1934, remained unentered in the Vaccination Register on account of—			Number of these Births remaining on 31st Jan., 1934, neither entered in the Vaccination Register nor temporarily accounted for.	Number of Certificates of successful Primary Vaccination of children under 14 received during 1933.	Number of Statutory Declarations of conscientious objection actually received during 1933.
			Successfully Vaccinated.	In-susceptible to Vaccination.	Had Small Pox.	Statutory Declarations of conscientious objection.	Died un-vaccinated.	Post-ponement by Medical Certificate.	Removal to other Districts.	Removal to places unknown and cases not found.			
Northern Area—													
Edmonton	T. E. David ...	2,218	577	2	—	1,116	97	23	159	169	75	586	1,143
Enfield	R. W. Perring ...	838	243	2	—	411	42	—	10	32	98	257	400
Tottenham, East	H. J. Roynon ...	919	241	—	—	481	40	15	1	47	94	591	758
Tottenham, West	H. J. Roynon ...	598	158	4	—	336	22	4	6	22	46		
North-Eastern Area—													
Finchley	S. M. Baldock ...	666	239	3	—	351	35	—	—	38	—	199	415
South Mimms	S. M. Baldock ...	76	37	—	—	28	7	—	—	4	—		
Hornsey	G. E. Dew ...	883	515	12	—	282	27	2	16	12	17	506	279
Southgate	T. E. David ...	463	220	4	—	184	8	10	5	11	21	271	154
Wood Green	R. W. Perring ...	542	204	2	—	235	19	—	18	17	47	257	201
Central Area—													
Harrow	F. Moore	1,899	851	21	—	768	69	11	54	79	46	764	761
Hendon	A. E. Taylor ...	1,624	970	9	—	309	68	31	101	109	27	1,076	374
Edgware	Miss A. L. Coomber	1,011	456	3	—	279	35	8	112	—	118	491	318
Willesden Area—													
Kilburn	W. McAuliffe ...	1,059	536	10	—	307	43	—	3	101	59	1,517	580
Harlesden	W. McAuliffe ...	899	414	4	—	270	34	1	79	81	16		
Western Area—													
Acton	G. F. K. Stidworthy	697	332	4	—	210	38	23	25	33	32	381	167
Ealing	B. W. La Nauze ...	1,233	575	4	—	463	41	12	44	45	49	658	407
Hayes	E. J. Burridge ...	988	279	2	—	534	25	14	20	28	86	367	439
Uxbridge	A. Finch	1,065	570	9	—	353	30	5	74	24	—	664	315
Hanwell	Mrs. J. Clough ...	600	226	2	—	272	23	30	7	40	—	325	248
Southern Area—													
Brentford	H. C. Gardener ...	192	87	2	—	66	9	1	2	4	21	157	68
Chiswick	H. S. Baker ...	314	156	—	—	105	11	5	3	24	10	287	93
Isleworth	W. J. Barkwill ...	1,730	805	6	—	472	83	58	151	83	72	874	515
Staines	A. H. Bates ...	363	175	—	—	127	13	1	10	37	—	205	128
Sunbury	R. Flood	593	280	2	—	214	28	6	6	37	20	207	194
Twickenham	W. J. Barkwill ...	517	274	7	—	119	12	25	13	34	33	282	135
Hampton	Mrs. M. R. Baines	430	247	4	—	142	14	1	2	20	—	312	113
	Totals ...	22,417	9,667	118	—	8,434	873	286	921	1,131	987	11,234	8,205

ISOLATION HOSPITAL ACCOMMODATION.

(*a*) *Smallpox.*—The County Council is the authority for the provision of hospital accommodation for smallpox for the whole of the administrative county. Under the terms of an agreement with the London County Council, cases of smallpox occurring in any part of Middlesex are removed by ambulance to the London County Council's diagnosis and observation station at South Wharf, Rotherhithe, and thence for treatment to one of the River Hospitals.

(*b*) *Other Acute Specific Fevers.*—Section 63 of the Local Government Act, 1929, requires the County Council to make a survey of the hospital accommodation for the treatment of infectious disease in the County and then to prepare, in consultation with the County District Councils, a scheme for the provision of adequate accommodation, for submission to the Minister of Health. The Survey was carried out and a report thereon provisionally adopted as the basis of the Council's scheme. This was circulated among the local authorities concerned in order that their observations thereon might be obtained. Although many criticisms of details were submitted, the great majority of the authorities expressed agreement with the principle involved, viz., the creation of a limited number of hospital areas, each under unified management, with a view in the future to a gradual reduction in the number of isolation hospitals in the County.

In January, 1932, the local authorities were asked to confer in four geographical groups and to express their opinions on a scheme on the following basis :—

1. That the County be divided into a number of hospital areas.
2. That a Joint Hospital Board be formed for each such area.
3. That all existing isolation hospitals in each area be valued and acquired by the appropriate Joint Hospital Board.
4. That each Board exercise control over all the isolation hospitals in its area, and decide what place each shall occupy in the provision of isolation accommodation for that area.

The four groups referred to were as follows :—

Northern Area.—The Councils of the Borough of Hornsey, the Urban Districts of Edmonton, Enfield, Finchley, Friern Barnet, Southgate, Tottenham, Wood Green, and the Rural District of South Mimms ; the Enfield and Edmonton Joint Hospital Board and the Hornsey, Finchley and Wood Green Isolation Hospital Committee.

North Central Area.—The Councils of the Urban Districts of Harrow, Hendon, Kingsbury, Wealdstone, Wembley, Willesden and the Rural District of Hendon.

South Central Area.—The Councils of the Boroughs of Acton and Ealing and the Urban Districts of Brentford and Chiswick, Hayes and Harlington, Ruislip-Northwood, Southall-Norwood, Uxbridge, Yiewsley and West Drayton ; the Chiswick and Ealing Hospitals Committee and the Uxbridge Joint Hospital Board.

Southern Area.—The Councils of the Borough of Twickenham, and the Urban Districts of Feltham, Hampton, Hampton Wick, Heston and Isleworth, Staines, Sunbury, Teddington ; the Borough of Richmond and Heston and Isleworth Urban District Joint Isolation Hospital Committee and the Staines Joint Hospital Committee.

As a result conferences were held amongst various groups of authorities, the views of these were considered, and a draft scheme was prepared.

The opinions of the local councils on the whole, however, showed a marked lack of unanimity, and on account of the divergences of opinion it was not possible in preparing the draft scheme to have regard to the views of all of the local authorities. The provisions of the scheme were based upon :—

(*a*) The advice given by the Ministry of Health in their Memorandum L.G.A. 40 ;

(*b*) The report made to the County Council in April, 1931 ;

(*c*) The various circulars forwarded to the local authorities ; and

(*d*) The views of local authorities (in so far as was practicable).

The draft scheme was circulated among all the local authorities and joint hospital boards and committees concerned, with an invitation to submit their observations and constructive criticisms for the amendment thereof.

In view of the preference expressed by certain authorities for joint hospital committees rather than joint hospital boards, the scheme, which as originally drafted provided for the formation of a joint hospital board for each of the four proposed areas, has been amended to allow of the formation of joint hospital committees.

The scheme is set out on pages 70 *et seq.*, and was submitted to the Ministry of Health in July, 1933. It provides for four hospital areas each comprising from 7 to 9 County Districts, which, having regard to the area of the County, the distribution of the population and the location of existing isolation hospitals, would appear to be a convenient number. The table on pages 68–69 gives relevant statistics for such grouping, including the number of beds provided in the County for infectious diseases other than smallpox on the basis of 144 sq. ft. of floor space per bed, and also the actual number of beds provided. The figures as to present numbers of beds are those obtained from the hospital authorities in returns submitted by them in 1930.

The comparatively large areas suggested, owing to their greater resources, should afford a greater measure of efficiency and a more fully developed hospital service than small areas, and probably also would result in a smaller total number of beds being necessary. Further, with modern methods of transport available, the necessity for an infectious disease hospital to be close to all units of the population it serves no longer exists.

As the scheme was to be on a County basis, a wide outlook in preparing it was adopted, for it appeared that the question as to what would be best for the County as a whole should be a more important factor than the aspirations or desires of any one particular local authority. Accordingly, it will be observed that the suggested division into areas contemplates something in the nature of the equalisation of the financial burden necessary to provide a sufficient number of beds, but as the areas are each of fairly considerable size the effect on the rates of the more prosperous districts by reason of their being required to assist in the provision of accommodation for their poorer neighbours is less than it might be if the areas were smaller. The figures showing the rateable value per head of population for the areas shown in the table on pages 68–9 roughly approximate to one another and are not much higher or lower than the figure for the whole County.

It was proposed that accommodation in any of the four areas should be available for other parts of the County, and for this purpose the scheme provides for reciprocal agreements being entered into between the several joint boards or committees. Hospital accommodation for certain less common infectious diseases, to serve the needs of residents in the whole of the County, might, with advantage, be concentrated at one or two conveniently situated isolation hospitals and Clause 5 enables this policy to be followed.

It was not considered advisable to go into details in preparing the scheme, as it was felt that these could best be settled by subsequent agreement between the local authorities concerned when they came to prepare their agreements or applications to the Minister of Health for the necessary Provisional Orders. Such details would no doubt include questions of the financial arrangements necessary and of the representation of the districts on the joint boards or committees. With regard to representation the fact that the scheme contemplates comparatively large hospital areas would tend to prevent any one local authority exerting a preponderating influence in the decisions of the joint board or committee for the area.

The scheme is merely an outline of arrangements which, if properly carried out, should result in an efficient and uniform system for the treatment of infectious disease throughout the County, and enable smaller or poorer districts to have access to resources available to larger or richer areas.

The scheme provides that in due course each joint hospital board or committee which will be set up under the scheme shall decide which hospitals in its area shall cease to be used for their present purpose. It is not contemplated, however, that this should be done immediately, but rather that as new accommodation is provided at other existing hospitals or at new hospitals in the several hospital areas, certain hospitals shall gradually cease to operate. It will be seen, therefore, that each joint board or committee will at the outset of its career have at its disposal the whole of the beds at present in the area, but it will be incumbent on the board or committee in developing its future policy to decide as to the hospital or hospitals at which new accommodation should be provided as required, or even to erect a new hospital altogether, and to close those hospitals no longer needed. Clause 5, which deals with the provision of accommodation for certain special diseases, however would permit a joint board or committee to utilise for such diseases a hospital not deemed suitable, for general development.

STATISTICAL TABLE OF SUGGESTED AREAS FOR ISOLATION HOSPITAL PROVISION.

No. of Area.	County Districts included in Area.	Area.	Population (Estimated by the Registrar General Mid 1932).	Rateable Value 1st April, 1933.	Rateable Value per head of population.	Beds.			Existing Hospitals and actual Number of Beds in each.	
						Present No. on Ministry of Health basis of 144 sq. ft. of floor space per bed.	Suggested No. to be provided (1 per 1,000 population) (*see* note).	No. of new beds required (difference between Columns 7 and 8) (*see* note).		
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	
		Acres.		£	£					
1	Edmonton U.D.	3,896	82,010	469,939					Edmonton and Enfield Joint	160
	Enfield U.D.	12,574	69,910	516,420					Hornsey, Finchley and Wood Green Joint	150
	Finchley U.D.	3,384	60,290	702,354					Southgate U.D.	56
	Friern Barnet U.D.	1,304	23,530	212,894						
	Hornsey B.	2,875	96,990	1,006,572						
	Southgate U.D.	3,596	57,250	673,613						
	South Mimms R.D.	6,129	6,720	75,655						
	Tottenham U.D.	3,014	156,800	891,107						
	Wood Green U.D.	1,626	54,500	462,484						
		38,398	608,000	5,011,038	8·24	304	596	292		366
2	Harrow-on-the-Hill U.D. ..	2,129	29,400	360,064					Hendon B.	60
	Hendon B.	10,471	123,200	1,507,644					Willesden U.D.	149
	Hendon R.D.	9,230	50,810	606,991					Harrow-on-the-Hill U.D. ..	56
	Kingsbury U.D.	1,829	20,520	210,014					Hendon R.D.	17
	Wealdstone U.D.	1,061	28,320	238,160						
	Wembley U.D.	4,564	53,420	590,912						
	Willesden U.D.	4,385	186,800	1,363,602						
		33,669	492,470	4,877,387	9·90	234	462	228		282

3	Acton B.	2,305	70,640	728,771					Acton B.	95
	Brentford and Chiswick B.	2,341	62,950	586,365/10					Uxbridge Joint	51
	Ealing B.	9,133	122,700	1,240,491					Chiswick and Ealing	121
	Hayes and Harlington U.D.	5,513	26,650	176,400					Southall-Norwood U.D.	52
	Ruislip-Northwood U.D.	6,585	17,440	215,713						
	Southall-Norwood U.D.	2,575	41,530	305,753						
	Uxbridge U.D.	10,238	32,420	242,342						
	Yiewsley and West Drayton U.D.	5,277	13,730	74,092/10						
		43,967	388,060	3,569,928	9·20	264	374	110		319
4	Feltham U.D.	5,089	16,950	135,594					Staines Joint	36
	Hampton U.D.	2,045	13,030	190,337					Twickenham B.	34
	Hampton Wick U.D.	1,306	2,950	30,100					Hampton U.D.	20
	Heston and Isleworth B.	6,851	81,100	607,823					Heston and Isleworth and Richmond Joint (Mogden)	52
	Staines U.D.	8,268	22,070	209,494						
	Sunbury-on-Thames U.D.	5,463	13,510	146,990						
	Teddington U.D.	1,214	23,490	185,450						
	Twickenham B.	2,421	40,900	362,646						
		32,657	214,000	1,868,434	8·73	130	206	76		142
	Grand Totals	148,691	1,702,530	15,326,787	9·00*	932	1,638	706		1,109

* Rateable value per head of population for whole County.

Note.—Experience may show that the enlargement of the areas and units of population for isolation hospital purposes consequent upon the creation of a limited number of Joint Isolation Hospital Districts, and the "pooling" of hospital accommodation effected by agreements under Clauses 5 and 6 of the Scheme, will result in a lower proportion than the ordinarily accepted standard of 1 bed per 1,000 of the population proving adequate for the needs of the area.

COUNTY COUNCIL OF MIDDLESEX.

LOCAL GOVERNMENT ACT, 1929.

SCHEME FOR THE PROVISION OF ADEQUATE HOSPITAL ACCOMMODATION FOR THE TREATMENT OF INFECTIOUS DISEASE, OTHER THAN SMALLPOX, WITHIN THE COUNTY.

1. With a view to the provision of adequate hospital accommodation for the treatment of infectious disease, other than smallpox, in the County of Middlesex, the County shall be divided into areas consisting of the County Districts specified in the second column of the subjoined table, and there shall be provided for each such area accommodation approximating to that specified in the third column and placed opposite to the number and description of the area.

Number of Area.	County Districts comprised in Area.	Suggested number of Beds to be provided (1 per 1,000 population). (*See* Note.)
1	Edmonton U.D. Enfield U.D. Finchley U.D. Friern Barnet U.D. Hornsey B. Southgate U.D. South Mimms R.D. Tottenham U.D. Wood Green U.D.	596
2	Harrow-on-the-Hill U.D. Hendon R.D. Hendon B. Kingsbury U.D. Wealdstone U.D. Wembley U.D. Willesden U.D.	462
3	Acton B. Brentford and Chiswick B. Ealing B. Hayes and Harlington U.D. Ruislip-Northwood U.D. Southall-Norwood U.D. Uxbridge U.D. Yiewsley and West Drayton U.D.	374
4	Feltham U.D. Hampton U.D. Hampton Wick U.D. Heston and Isleworth B. Staines U.D. Sunbury-on-Thames U.D. Teddington U.D. Twickenham B.	206

NOTE.—Experience may show that the enlargement of the areas and units of population for isolation hospital purposes consequent upon the creation of a limited number of Joint Isolation Hospital Districts and the "pooling" of hospital accommodation effected by agreements under Clauses 5 and 6 of the Scheme will result in a lower proportion than the ordinarily accepted standard of 1 bed per 1,000 of the population proving adequate for the needs of the area.

2. Any additional accommodation rendered necessary by the provisions of this Scheme shall be provided by the Councils of the County Districts, for which purpose they shall as soon as may be initiate action and carry through any proceedings that may be necessary on their part for forming united districts, or altering the constitution of existing united districts, as may be required pursuant to the provisions of Sections 279 and 297 of the Public Health Act, 1875, or for combining under Section 131 of the Act, one such united district or combination being formed for each of the areas numbered one, two, three and four, respectively, in Clause 1 of this Scheme.

3.—(*a*) The Enfield and Edmonton Isolation Hospital, World's End, Winchmore Hill, N.21, the Hornsey, Finchley and Wood Green Isolation Hospital, Coppetts Road, Muswell Hill, N.10, and the Southgate Isolation Hospital, Tottenhall Road, Palmers Green, N.13, provided by the Enfield and Edmonton Joint Hospital Board, the Hornsey, Finchley and Wood Green Joint Hospital Committee and the Southgate Urban District Council respectively, shall be made available for the reception of persons suffering from infectious disease other than smallpox who are inhabitants of any County District comprised within the area numbered one in Clause 1 of this Scheme, the Council of which is not at present entitled to use the said hospitals, and the said hospitals shall, in the event of a Joint Hospital Board being constituted for the said area in pursuance of Clause 2 of this Scheme, be transferred to, and become the property of, such Board, or, in the event of a Joint Committee being formed, be held, maintained and used on such terms and conditions as may be agreed between the Councils of the County Districts comprised within the area.

(*b*) The Isolation Hospitals, Rayner's Lane, South Harrow, The Hyde, Hendon, and Honeypot Lane, Stanmore, and the Willesden Municipal Hospital, Brentfield Road, Neasden, N.W.10, provided by the Harrow-on-the-Hill Urban District Council, the Hendon Town Council, the Hendon Rural District Council and the Willesden Urban District Council respectively, shall be made available for the reception of persons suffering from infectious disease other than smallpox who are inhabitants of any County District comprised within the area numbered two in Clause 1 of this Scheme, the Council of which is not at present entitled to use the said hospitals, and the said hospitals shall, in the event of a Joint Hospital Board being constituted for the said area in pursuance of Clause 2 of this Scheme, be transferred to, and become the property of, such Board, or, in the event of a Joint Committee being formed, be held, maintained and used on such terms and conditions as may be agreed between the Councils of the County Districts comprised within the area.

(*c*) The Acton Fever Hospital, Wales Farm Road, Acton, W.3, the Chiswick and Ealing Isolation Hospital, Clayponds Lane, South Ealing, W.5, the Mount Pleasant Hospital, Mount Pleasant, Southall and the Uxbridge Joint (or Isolation) Hospital, Kingston Lane, Uxbridge, provided by the Acton Town Council, the Chiswick and Ealing Hospitals Committee, the Southall-Norwood Urban District Council and the Uxbridge Joint Hospital Board respectively, shall be made available for the reception of persons suffering from infectious disease other than smallpox who are inhabitants of any County District comprised within the area numbered three in Clause 1 of this Scheme, the Council of which is not at present entitled to use the said hospitals, and the said hospitals shall, in the event of a Joint Hospital Board being constituted for the said area in pursuance of Clause 2 of this Scheme, be transferred to, and become the property of, such Board, or, in the event of a Joint Committee being formed, be held, maintained and used on such terms and conditions as may be agreed between the Councils of the County Districts comprised within the area.

(*d*) The Isolation Hospital, Uxbridge Road, Hampton Hill, the Mogden Isolation Hospital, Isleworth, the Staines Joint Hospital, Long Lane, Ashford, and the Borough Hospital, Nelson Road, Twickenham, provided by the Hampton Urban District Council, the Boroughs of Richmond (Surrey) and Heston and Isleworth Joint Isolation Hospital Committee, the Staines Joint Hospital Committee and the Twickenham Town Council respectively, shall be made available for the reception of persons suffering from infectious disease other than smallpox who are inhabitants of any County District comprised within the area numbered four in Clause 1 of this Scheme, the Council of which is not at present entitled to use the said hospitals, and the said hospitals shall, in the event of a Joint Hospital Board being constituted for the said area in pursuance of Clause 2 of this Scheme, be transferred to, and become the property of, such Board or, in the event of a Joint Committee being formed, be held, maintained and used on such terms and conditions as may be agreed between the Councils of the County Districts comprised within the area.

4. Subject as hereinafter provided, the several Joint Hospital Boards or Committees to be constituted in pursuance of Clause 2 of this Scheme shall, as soon as may be and subject as aforesaid, take into consideration the question of the closure and disposal of such of the hospitals as are their property or the property of their constituent Authorities respectively and can be most conveniently dispensed with having regard to the desirability of substantially reducing the total number of isolation hospitals in the County, provided that in the case of a Joint Committee no executive action shall be taken until it has received the approval of the appropriate constituent Authority or Authorities concerned.

5. Each of the several Joint Hospital Boards or Committees to be constituted in pursuance of Clause 2 of this Scheme shall, as soon as may be, take into consideration the question of the provision

of special accommodation for the treatment of infectious diseases other than scarlet fever, diphtheria and enteric fever, *e.g.*, encephalitis lethargica, cerebro-spinal meningitis, puerperal fever, ophthalmia neonatorum, &c., &c., and for the purpose of such provision may utilise any of the hospitals which are their property, or the property of their constituent Authorities, or contract with any other Joint Hospital Board or Committee in the County for the reception and treatment of persons suffering from such diseases in special accommodation under the control of such other Joint Hospital Board or Committee for the treatment of persons suffering from such diseases.

6. In order that, in cases of emergency or of suitable accommodation not being available in all or any of the hospitals under the control of any Joint Hospital Board or Committee, accommodation in any hospital under the control of any Joint Hospital Board or Committee may be readily available for the reception of persons suffering from infectious disease other than smallpox residing in the area of any of the other Joint Hospital Boards or Committees in the County, each of the several Joint Hospital Boards or Committees to be constituted in pursuance of Clause 2 of this Scheme shall contract under Section 131 of the Public Health Act, 1875, with each of the other such Joint Hospital Boards or Committees for the reception and treatment in any hospital under the control of that Joint Hospital Board or Committee of persons suffering from infectious disease other than smallpox residing within the area of such other Joint Hospital Board or Committee.

7.—(*a*) Any agreement made in pursuance of Clause 5 of this Scheme may provide for the payment of a capital sum to the Joint Board or Committee maintaining the Hospital by the Joint Board or Committee from whose area patients are to be received into the hospital, and every such agreement shall provide for the payment of such other sums by way of annual retaining fees and weekly payments for the maintenance and treatment of patients in the hospital as may be agreed between the parties thereto or in default of agreement as may be determined by an arbitrator appointed by the parties, or in case of difference as to the appointment, appointed by the County Council.

(*b*) Every agreement made in pursuance of Clause 6 of this Scheme shall provide for the payment of such sums by way of weekly payments for the maintenance and treatment of patients in the hospital as may be agreed between the parties thereto or in default of agreement as may be determined by an arbitrator appointed by the parties, or in case of difference as to the appointment, appointed by the County Council.

Tuberculosis.

The number of new cases of tuberculosis reported in the County by district medical officers of health during 1933 was 2,404, a decrease of 6 as compared with the total for 1932. Of these cases, 31 were those of persons who had changed their place of residence from one sanitary district to another within the County and, in accordance with the Regulations, were the subject of primary notification in each district, whilst ten were cases which in previous years had been brought to the notice of medical officers of health by means other than notification but which were formally notified in 1933. Thus the net number of new cases in the County as a whole was 2,363. This number includes not only the new cases which have arisen and been diagnosed in the course of the year, but also the considerable number of persons with established disease who during the year have removed into the County.

Of the gross total, 2,082 (86·61 per cent.) were notified by medical practitioners or school medical officers in accordance with the Regulations, whilst 322 (13·39 per cent.) came to the notice of medical officers of health otherwise than by formal notification.

The incidence-rates of pulmonary tuberculosis and of all forms of tuberculosis, as measured by the number of cases reported, amount to 1·00 and 1·19 per 1,000 persons living, respectively, which are the lowest rates which have ever been recorded for the County. These rates, however, for reasons set out in previous reports, cannot be accepted as an entirely accurate index of the occurrence of tuberculosis.

The number of deaths attributed to tuberculosis during the year was 1,224 (an increase of 80 as compared with 1932), of which 1,046 were due to pulmonary and 178 to non-pulmonary tuberculosis, corresponding to a death-rate from all forms of the disease of 0·70 per 1,000 persons living.

The death-rate from pulmonary tuberculosis is very slightly higher than that for the previous year, when a new low record was set up; whilst the death-rate from non-pulmonary tuberculosis is equal to that of 1932, the lowest on record.

In the following table are set out figures showing notifications and deaths and the corresponding rates both for pulmonary tuberculosis and for all forms of the disease during the past ten years. The diagram on page 76 illustrates the fall in mortality from tuberculosis which has taken place during the present century.

TUBERCULOSIS NOTIFICATIONS AND DEATHS FOR THE PAST 10 YEARS.

	Tuberculosis of Respiratory System.				All Forms of Tuberculosis.			
	Number of Notifications.	Rate per 1,000 living.	Number of Deaths.	Death-rate per 1,000 living.	Number of Notifications.	Rate per 1,000 living.	Number of Deaths.	Death-rate per 1,000 living.
1924	1,635	1·27	986	0·76	1,982	1·54	1,188	0·92
1925	1,630	1·25	922	0·71	1,982	1·52	1,097	0·84
1926	1,655	1·25	944	0·71	2,009	1·52	1,138	0·86
1927	1,621	1·20	1,024	0·76	2,015	1·49	1,193	0·88
1928	1,478	1·04	909	0·64	1,819	1·28	1,071	0·76
1929	1,606	1·10	1,058	0·73	1,911	1·31	1,215	0·83
1930	1,623	1·04	981	0·63	2,015	1·29	1,164	0·75
1931	1,749	1·07	989	0·60	2,120	1·29	1,160	0·71
1932	1,733*	1·02	965	0·57	2,108*	1·24	1,144	0·67
1933	1,750*	1·00	1,046	0·60	2,082*	1·19	1,224	0·70

* These figures are obtained from the weekly notifications of the district medical officers of health in the County; the remaining statistics (except the rates) are supplied by the Registrar-General.

The following table shows the age and sex distribution of 2,363 new cases, which occurred in 1933, divided into pulmonary and non-pulmonary groups and compared with the number of deaths, similarly classified.

NEW CASES AND DEATHS DURING 1933.

Age Periods.	New Cases.*				Deaths.†			
	Pulmonary.		Non-Pulmonary.		Pulmonary.		Non-Pulmonary.	
	M.	F.	M.	F.	M.	F.	M.	F.
0–1	2	4	6	2	—	1	4	4
1–5	4	8	37	21	5	1	27	19
5–10	16	10	46	32	3	5	18	16
10–15	21	18	27	24				
15–20	80	100	17	33	86	120	17	10
20–25	125	195	13	23				
25–35	270	286	33	39	143	133	8	15
35–45	205	154	12	16	108	94	4	7
45–55	180	68	10	7	137	55	10	3
55–65	118	40	2	1	69	32	5	4
65 and upwards	28	22	5	3	31	23	4	3
Totals	1,049	905	208	201	582	464	97	81

* These figures are summarised from the weekly returns received from the medical officer of health of each district in accordance with the Public Health (Tuberculosis) Regulations, 1930, and include notified and non-notified cases in the County as a whole during the calendar year, 1933.

† Statistics supplied by the Registrar-General.

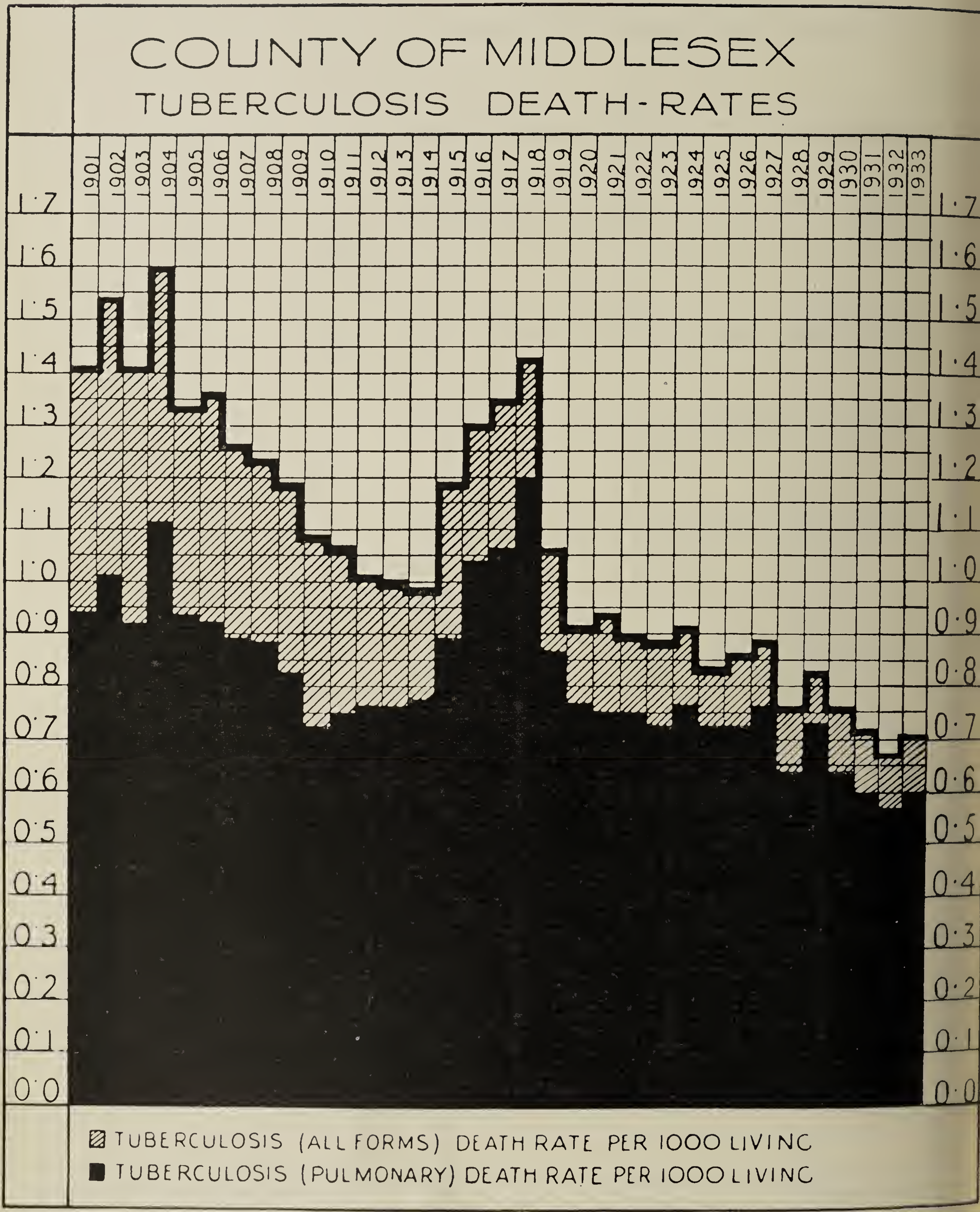
In the table on pages 74 and 75 are set out details relating to notifications of and deaths from tuberculosis in each sanitary district in Middlesex, together with the numbers of persons whose names at the close of the year were on the tuberculosis registers kept by the various local sanitary authorities.

NOTIFICATIONS OF, DEATHS FROM, AND TOTAL NUMBER OF CASES OF TUBERCULOSIS IN EACH SANITARY DISTRICT.*

District.	Tuberculosis (all forms).				Cases of tuberculosis remaining on the 31st December, 1933, on the Registers of Notifications kept by Medical Officers of Health of districts in the County.						
	Cases notified, 1933.		Deaths, 1933.		Pulmonary.			Non-Pulmonary.			Grand Total.
	No.	Rate per 1,000 living.	No	Rate per 1,000 living.	Males.	Females.	Total.	Males.	Females.	Total.	
Urban—											
Acton (*Borough*)	77	1·10	63	0·90	162	161	323	37	27	64	387
Brentford and Chiswick (*Borough*)	86	1·37	55	0·87	262	270	532	66	90	156	688
Ealing (*Borough*)	178	1·38	80	0·62	226	190	416	43	55	98	514
Edmonton	110	1·27	58	0·67	245	208	453	75	73	148	601
Enfield	73	1·02	49	0·68	179	147	326	41	46	87	413
Feltham	18	0·01	11	0·61	15	9	24	8	11	19	43
Finchley (*Borough*)	59	0·96	24	0·39	123	122	245	30	37	67	312
Friern Barnet	19	0·79	14	0·58	36	29	65	7	7	14	79
Hampton	10	0·75	9	0·68	14	19	33	9	10	19	52
Hampton Wick	7	2·40	2	0·68	7	8	15	2	1	3	18
Harrow	40	1·26	18	0·57	62	57	119	4	11	15	134
Hayes and Harlington	39	1·36	25	0·87	45	35	80	17	18	35	115
Hendon (*Borough*)	151	1·18	90	0·71	284	260	544	109	117	226	770
Heston and Isleworth (*Borough*)	124	1·47	76	0·90	139	118	257	45	40	85	342
Hornsey (*Borough*)	100	1·04	64	0·67	275	279	554	81	83	164	718
Kingsbury	29	1·17	11	0·44	33	32	65	11	8	19	84
Ruislip-Northwood	11	0·59	10	0·53	42	37	79	16	6	22	101
Southall-Norwood	65	1·45	44	0·98	98	93	191	26	32	58	249
Southgate (*Borough*)	46	0·78	23	0·39	108	77	185	23	25	48	233
Staines	26	1·11	19	0·81	21	19	40	6	6	12	52
Sunbury	11	0·78	9	0·64	12	14	26	6	5	11	37
Teddington	26	1·12	11	0·47	55	47	102	22	16	38	140
Tottenham	224	1·45	136	0·88	370	318	688	107	79	186	874
Twickenham (*Borough*)	35	0·84	35	0·84	72	66	138	20	22	42	180

Uxbridge	43	1·26	29	0·85	54	32	86	20	18	38	124
Wealdstone	36	1·21	16	0·54	63	56	119	17	24	41	160
Wembley	59	1·00	34	0·58	167	120	287	29	44	73	360
Willesden (*Borough*)	246	1·32	140	0·75	344	298	642	72	88	160	802
Wood Green (*Borough*)	65	1·20	32	0·59	130	97	227	29	51	80	307
Yiewsley and West Drayton	15	1·03	8	0·55	38	15	53	30	18	48	101
Rural—											
Hendon	47	0·80	23	0·39	93	73	166	20	16	36	202
South Mimms	7	0·94	6	0·80	13	15	28	5	6	11	39
The County	2,082	1·19	1,224	0·70	3,787	3,321	7,108	1,033	1,090	2,123	9,231

* Statistics as to deaths supplied by the Registrar-General. Other statistics obtained from periodical returns from district medical officers of health.


COUNTY OF MIDDLESEX
TUBERCULOSIS DEATH-RATES
1901
1902
1903
1904
1905
1906
1907
1908
1909
1910
1911
1912
1913
1914
1915
1916
1917
1918
1919
1920
1921
1922
1923
1924
1925
1926
1927
1928
1929
1930
1931
1932
1933
1·7
1·6
1·5
1·4
1·3
1·2
1·1
1·0
0·9
0·8
0·7
0·6
0·5
0·4
0·3
0·2
0·1
0·0
▨ TUBERCULOSIS (ALL FORMS) DEATH RATE PER 1000 LIVING
■ TUBERCULOSIS (PULMONARY) DEATH RATE PER 1000 LIVING

SCHEME FOR THE PREVENTION AND TREATMENT OF TUBERCULOSIS.

The Council's scheme for the prevention and treatment of tuberculosis has continued to operate smoothly and efficiently during the year. Details of the scheme have been set out very fully in earlier Annual Reports and need not be recapitulated here. More and more use is being made of X-rays as a means of diagnosis and prognosis; and the presence of well-equipped radiological departments in the County Council's general hospitals and in certain of the voluntary hospitals in the County and in London, renders this most valuable diagnostic aid available to all the Council's tuberculosis medical officers.

(*a*) *Tuberculosis Dispensaries.*

Information regarding the tuberculosis dispensary arrangements in Middlesex is contained in the table which follows :—

Area.	Districts served.	Tuberculosis Medical Officer.	Head Dispensary.	Branch Dispensaries.
1	Edmonton, Enfield	Dr. H. Evans ..	279, Fore Street, Edmonton.	—
1A	Tottenham	Dr. S. T. Davies ..	140, West Green Road, Tottenham.	—
2	Finchley, Friern Barnet, *Hendon (Borough), Hornsey, Southgate, Wood Green, South Mimms.	Dr. J. R. B. Dobson	Chester Villa, High Road, N. Finchley.	10, Alexandra Road, Hornsey; 158, The Broadway, West Hendon.
3	Edgware, Harrow, Kingsbury, Ruislip-Northwood, Wealdstone, Wembley, Willesden, Hendon (Rural).	Dr. O. Bruce.. ..	Pound Lane, Willesden.	53, Greenhill Crescent, Harrow.
4	Acton, Ealing, Hayes and Harlington, Southall-Norwood, Uxbridge, Yiewsley and West Drayton.	Dr. F. R. B. Atkinson	Green Man Passage, Green Man Lane, West Ealing.	School Clinic, 45 and 47, Avenue Road, Acton; 156, High Street, Uxbridge.
5	Brentford & Chiswick, Feltham, Hampton, Hampton Wick, Heston & Isleworth, Staines, Sunbury, Teddington, Twickenham.	Dr. W. S. Forbes ..	28, Bell Road, Hounslow.	14, Heathfield Terrace, Chiswick; 12, Thames Street, Staines; 1, Staines Road, Twickenham.

* Excluding Edgware.

The work carried out at the Council's dispensaries is mainly consultative and advisory in character, and active treatment is not undertaken to any considerable extent. Provision has been made by the County Council, however, whereby certain specialized forms of out-patient treatment are given to tuberculous patients at voluntary hospitals or elsewhere, the County Council bearing the cost, subject in a few instances to a contribution from the patient or his relatives. Some particulars of this work may be summarized as follows :—

(1.) *Artificial Pneumothorax refills.*—During the year 213 patients made a total number of 3,723 attendances for the purpose of continuing artificial pneumothorax refills: of this number, 93 were dealt with at the County Sanatorium, Harefield, where they made in all 1,249 attendances.

(2.) *Light treatment.*—Twenty-seven patients, most of them suffering from lupus, received treatment by Finsen or other forms of light at certain voluntary hospitals in London, making a total of 2,246 attendances.

(3.) *After-care of Surgical cases.*—Children discharged from Heatherwood Hospital, Ascot, are kept under supervision by an orthopædic surgeon from the Hospital at the Farringdon Dispensary, London, E.C., where minor manipulative treatment is given and surgical appliances are adjusted or renewed. This arrangement is the subject of a direct financial agreement with the County Council. During the year, 34 patients were supervised in this way and made 111 attendances.

Surgical cases discharged from other hospitals also usually are kept under periodical supervision, either at the hospital from which they have been discharged (their travelling expenses in some instances being met by the Council) or at an after-care clinic or out-patient department in London, associated with the hospital.

(*b*) *Institutional Accommodation.*

The demands upon the Council's institutional accommodation, to which reference has been made in recent Annual Reports, continued unabated during 1933. The position is that for a number of years, more and more beds have been required for dealing with the tuberculosis problem in Middlesex. This has been due partly to the growth of population in the County and partly, no doubt, to an increasing inclination on the part of tuberculous patients to avail themselves of the benefits of sanatorium and hospital treatment. Some more detailed observations on this subject were made in the Annual Report for 1931, in which year, immediately following the financial crisis, the demand for institutional accommodation rose suddenly to unprecedented heights. Since 1931 this pressure has steadily increased so that in November, 1933, over one thousand patients were being at one time maintained in sanatoria and hospitals by the Council under its scheme. This figure is in addition to a substantial number of tuberculous persons undergoing treatment in the County Council's several public assistance general hospitals and institutions. Whilst the figure quoted above, namely 1,000, represents the maximum number of tuberculous patients undergoing sanatorium or hospital treatment at any one time, the corresponding minimum figure for the year did not fall below 900. Experience over a number of years has shown that the difference between the minimum and maximum number of patients maintained at any time in the course of a year varies between the limits of 75 and 150.

The County Council possesses in its own sanatoria some 500 beds for the treatment of pulmonary tuberculosis. Tuberculous persons in excess of this number, for whom institutional accommodation is required are dealt with by admission to various voluntary hospitals and sanatoria where the cost of their maintenance is met by the County Council.

The following statement shows the total number of beds belonging to, or reserved for the sole use of, the Council during 1933 :—

<table>
<tr><th rowspan="3">Institution.</th><th colspan="3">Accommodation.</th><th rowspan="3">Type of case.</th></tr>
<tr><th colspan="2">Adults.</th><th rowspan="2">Children.</th></tr>
<tr><th>M.</th><th>F.</th></tr>
<tr><td rowspan="2">County Sanatorium, Harefield</td><td>129</td><td>129</td><td>56</td><td>Pulmonary—sanatorium.</td></tr>
<tr><td colspan="2">4</td><td>8</td><td>Pulmonary—observation.</td></tr>
<tr><td>County Sanatorium, Clare Hall, South Mimms</td><td>120</td><td>66</td><td>—</td><td>Pulmonary—late sanatorium and hospital.</td></tr>
<tr><td>Heatherwood Hospital, Ascot . .</td><td>—</td><td>—</td><td>25</td><td>Non-pulmonary.</td></tr>
<tr><td>Victoria Home, Margate . . . .</td><td>—</td><td>—</td><td>6</td><td>Non-pulmonary.</td></tr>
</table>

Other Institutions at which Patients have been maintained during 1933.

<table>
<tr><td>*Sanatoria.*—Brompton Hospital Sanatorium, Frimley; Cotswold, Gloucester; Daneswood, Woburn Sands; Eversfield, St. Leonards; Fairlight, Hastings; Grosvenor, Ashford, Kent; Holy Cross, Haslemere; King Edward VII, Midhurst; Maltings Farm, Nayland, nr. Colchester; Merivale, Sandon, nr. Chelmsford; National, Benenden; Pinewood, Wokingham (L.C.C.); Prior Place, Camberley, Surrey; Royal National, Bournemouth; Royal National, Ventnor; Ware Park, Ware ((Herts C.C.)</td><td rowspan="4">Pulmonary—various types.</td></tr>
<tr><td>*Hospitals.*—St. Anthony's, Cheam; St. Barnabas', Torquay; City of London, Victoria Park; Colindale, Hendon; Prince of Wales's, Tottenham; Royal Northern, Holloway; Brompton; St. George's; Royal Chest; St. Mary's; Seamen's; University College Hospital; and the London County Council's general hospitals, Hackney; Highgate; St. Luke's, Chelsea; and St. Pancras.</td></tr>
<tr><td>*Colonies.*—British Legion Village, Preston Hall, Aylesford; Burrow Hill, Frimley; Papworth Village Settlement, Papworth Hall, Cambridge.</td></tr>
<tr><td>*Homes for very advanced cases.*—St. Joseph's Hospice, Hackney; St. Peter's, Kilburn.</td></tr>
</table>

Hospitals.—Atkinson Morley, Wimbledon ; Hendon Cottage ; Holy Cross, Broadstairs ; Royal National Orthopædic, London, and Country Branch, Stanmore ; Royal Sea-Bathing, Margate ; St. Anthony's, Cheam ; St. Vincent's Orthopædic, Pinner ; Wingfield Orthopædic, Oxford ; and Prince of Wales's, Tottenham ; The London, St. Mary's, and University College Hospitals, London.	Non-pulmonary—adults.
Holy Cross, Broadstairs ; Holy Cross, Ramsgate ; Lord Mayor Treloar Cripples', Alton ; Melton Lodge, Gt. Yarmouth ; Royal, Richmond ; Royal National Orthopædic, Country Branch, Stanmore ; Royal Sea-Bathing, Margate ; St. Michael's Orthopædic, Clacton ; St. Nicholas and St. Martin's Orthopædic, Pyrford ; St. Vincent's, Pinner ; Woodlands, Northfields, Birmingham ; Hendon Cottage : Prince of Wales's, Tottenham ; University College Hospital, London.	Non-pulmonary—children.

The County Sanatorium, Harefield.

In last year's Annual Report reference was made to the need for the entire rebuilding of the County Sanatorium, Harefield, and to the fact that a commencement already had been made by the erection of a nurses' home which was completed and opened in February, 1932. Owing to the financial crisis of 1931, work in connection with the rest of the scheme of reconstruction was temporarily held in suspense, but in January, 1933, in view of the increasing urgency of the problem, the County Council decided to go forward with the matter and approved sketch plans to rebuild the whole of the sanatorium at an estimated cost of £165,530. In planning the new sanatorium the object aimed at has been to centralize the accommodation, and to provide an institution which, whilst forming a model of what a sanatorium should be, will also be an establishment suitable for the reception and treatment of patients suffering from almost any other form of disease, lest, during the life of the buildings advancement of medical science may render the sanatorium treatment of tuberculosis unnecessary. The newly-prepared revised lay-out plan and sketch plans provide for the following buildings :—

1. Medical and administration block centrally placed, containing administrative offices, committee room, dispensary and laboratory on the ground floor, and on the upper floor, operating theatre unit, x-ray unit and rooms for electrical, diathermy, sun-ray and dental treatment. (In designing this block, due regard has been had to requirements which might arise by reason of future developments in the treatment of tuberculosis at the Sanatorium).
2. Three-storey men's block, having three superimposed wards of 50 beds each, forming a wing on the east side of the medical and administration block and connected with it on all floors.
3. Three-storey women's block containing 150 beds, similarly arranged and placed on the west side of the medical and administration block.
4. Single storey block for 64 children, with school.
5. Single storey block for eight observation cases.
6. Dining hall and recreation hall block, placed in the rear of the men's and women's blocks and connected with them by covered ways.
7. Kitchen block.
8. Steward's stores.
9. Laundry.
10. Boiler house.
11. Mortuary.
12. Coal store, &c.
13. Entrance lodge.
14. Four staff cottages.

During the remainder of the year the County Architects' Department was engaged in preparing the necessary detailed plans and specifications.

The following summary of the year's work at the County Sanatorium, Harefield, has been prepared by Dr. J. R. McGregor, Medical Superintendent.

Admissions, Discharges and Deaths.

Table showing the movement of patients during the year ended December 31st, 1933.

	In Sanatorium on 31.12.32	Admitted During Year	Discharged During Year	Deaths	In Institution on 31.12.33
Treatment.					
Adults					
Male	126	340*	305†‡	34	127
Female	125	274	230	49	120
Children					
Male	24	32†	37*	2	17
Female	23	29	33	1	18
Observation.					
Adults					
Male	—	31‡	31	—	—
Female	—	32	30	—	2
Children—					
Male	3	50	50	—	3
Female	3	28	31	—	—
Totals	304	816	747	86	287

* Includes 2 cases transferred from the children's ward to the adult ward.

† Includes 1 case admitted as an adult who transferred to the children's ward shortly after admission.

‡ Includes 1 adult transferred from treatment ward to the observation ward, the diagnosis of pulmonary tuberculosis being doubtful. The case was later diagnosed as suffering from abdominal tuberculosis.

Table showing the condition of patients discharged after treatment during 1933 :—

Stage of disease on Admission.	Number Discharged.	Condition on Discharge.			
		Quiescent.	Improved.	No Material Improvement	Died.
Class T.B. Minus—		Per Cent.	Per Cent.	Per Cent.	Per Cent.
Males	60	6·66	83·33	8·33	1·66
Females	56	30·35	55·35	14·28	—
Children	54	64·81	27·77	7·40	—
Total..	170	32·94	56·47	10·00	0·58
Class T.B. Plus—					
Group I—					
Males	25	—	88·00	12·00	—
Females	20	20·00	80·00	—	—
Children	3	100·00	—	—	—
Total..	48	14·58	79·16	6·25	—
Class T.B. Plus—					
Group II—					
Males	129	0·77	82·94	13·95	2·32
Females	62	9·67	74·19	12·90	3·22
Children	5	80·00	—	20·00	—
Total..	196	5·61	78·06	13·77	2·55
Class T.B. Plus—					
Group III—					
Males	125	—	47·20	28·80	24·00
Females	140	1·42	35·00	30·00	33·57
Children	9	—	22·22	44·44	33·33
Total..	274	0·72	40·14	29·92	29·19

The classification and terms used are those of the Ministry of Health. See explanatory notes on pages 83 and 84.

Observation Ward (*Adults*).—In January, 1933, an observation ward for adults was opened. It is situated some distance from the treatment wards, one of the old buildings near the mansion having been converted for the purpose. It contains four beds, and is occupied alternately by males and females.

In addition to the usual equipment, and a separate heating apparatus, there is a bench for laboratory work, which facilitates frequent examinations of the sputum and fæces. The blood sedimentation reaction is performed on each patient, and Mantoux tests if necessary.

Patients are usually kept in for about two weeks, but can be retained for a longer period.

Of the 63 adult patients admitted for observation during the year, 9 males and 13 females were found to have definite evidence of pulmonary tuberculosis. 3 males and 7 females were admitted direct to the treatment wards and the remaining 12 were discharged to await admission.

The findings in the remaining 41 adult observation cases were :—

No evidence of disease	18
Bronchiectasis	5
Bronchitis and emphysema	7
Neurasthenia	3
New growth (carcinoma of lung and retroperitoneal sarcoma)	2
Heart disease	3
Others	3

Observation ward (*Children*).—Of the 78 children admitted for observation during the year, 27 (19 males and 8 females), were found to have definite evidence of pulmonary tuberculosis and were admitted direct to the treatment wards.

The following shows the results of the examination of 87 children, primarily admitted for observation, who were discharged during the year :—

Tuberculosis	34
No evidence of disease	49
Bronchiectasis	2
Doubtful	2 (taken home by parents before a definite diagnosis was made).

X-Ray Department.—The X-ray plant had been in use since 1922, soon after the opening of the sanatorium, and had given satisfactory service over that long period. The worn condition of the plant, and the lack of protective appliances, however, rendered it dangerous both to the staff and to the patients being examined. In January, 1934, a new apparatus was therefore installed which is more modern in construction, and renders possible more complete and extensive examinations than could be carried out with the former apparatus ; it is, in addition, completely shock proof.

In a sanatorium the X-ray plant is a most important part of the equipment, and X-ray investigation an essential feature in the examination of the thorax. All patients undergoing pneumothorax treatment receive frequent examination on the fluorescent screen, to check the efficacy of the treatment.

The construction of the new X-ray plant is such that it may be moved to another site, when such alteration is required by the rebuilding of the institution.

During the year approximately 1,100 X-ray photographs were taken. In addition numerous screen examinations were made.

Out-Patients.—During the year 93 out-patients attended periodically for artificial pneumothorax refills, making a total of 1,249 attendances. Generally speaking, these out-patients came in during the morning and were discharged the same day, except in a few cases where it was considered advisable for them to rest in the sanatorium for one night.

Of these out-patients 6 were detained for further institutional treatment, and are included in the table of admissions for the year.

In 4 cases the treatment was discontinued, as the patients were not gaining any benefit from it.

In 8 cases patients were transferred for their refills to other institutions, having either left the County, or finding it inconvenient to make the journey to Harefield for business reasons.

In 8 cases the treatment was completed, and in each case the patient is keeping in good heath.

In 2 cases the patients' condition deteriorated, and they have since died.

Other methods of collapse therapy employed were thoracoplasty, thoracoscopy, cauterisation of adhesions, and phrenic evulsion. Generally, patients were transferred to chest hospitals for these forms of treatment, but in five cases phrenic evulsion was performed at the sanatorium with satisfactory results.

Treatment by sanocrysin has again been given in a number of cases, with satisfactory results generally.

Nurses' Training School.—The sanatorium is approved by the General Nursing Council as a training school for the State Preliminary Examination. During 1933 two probationer nurses passed this examination and were successful in obtaining the Certificate of the Tuberculosis Nurses Association.

Farm and Garden.—The whole of the vegetables, fruit, eggs, poultry and pork required for consumption in the sanatorium are produced in the farm and garden.

The following shows the value of the produce supplied during the year ended 31st December, 1933:—

	Supplied to Sanatorium.	Sold.	Total.
Garden Produce—	£ s. d.	£ s. d.	£ s. d.
Vegetables	651 7 11	2 11 6	653 19 5
Fruit	96 5 0	—	96 5 0
Plants and flowers	234 9 6	—	234 9 6
Potatoes	127 15 6	—	127 15 6
Total value of garden produce	£1,109 17 11	£2 11 6	£1,112 9 5
Produce from Poultry Farm—			
Eggs	546 6 10	317 17 6*	864 4 4
Fowls	339 11 5	3 2 6	342 13 11
Ducks and geese	28 14 9	11 13 11	40 8 8
Manure	38 10 0	—	38 10 0
Feathers	21 4 0	—	21 4 0
Goats	—	0 11 0	0 11 0
Total value of produce from poultry farm ..	£974 7 0	£333 4 11	£1,307 11 11
Produce from Piggeries—			
Pigs	415 19 9	179 16 0	595 15 9
Manure	13 10 0	—	13 10 0
Total value of produce from pigs	£429 9 9	£179 16 0	£609 5 9
Hay	£13 2 6	—	£13 2 6

Total value of the produce from garden, poultry farm, piggeries:—

	£ s. d.
Supplied to the sanatorium	2,526 17 2
Sold	515 12 5
Total value	£3,042 9 7

* Supplied to other County Council institutions.

THE COUNTY SANATORIUM, CLARE HALL.

The following notes on the work of the Sanatorium during 1933 have been prepared by Dr. A. C. Tabois, Medical Superintendent.

On 31st December, 1932, there were remaining in the Sanatorium 180 patients.

During 1933 there were:—

Admitted—

	Hospital.	Sanatorium.		
Male	129	126	255	368 cases.
Female	46	67	113	
Discharged			224	365 cases.
Died			141	

There were, therefore, 548 patients under treatment during the year, of which 183 remained in the Institution on 31st December, 1933.

Type of Case.—This continues to be of a severe nature, there being little to choose between some labelled as "Hospital" or "Sanatorium" type, the proportion of bed cases (according to Ministry of Health formula) having gradually risen as shown by the following figures :—

	Per cent.
1928	54·31
1929	55·25
1930	61·41
1931	62·28
1932	61·74
1933	68·71

Mortality.—This was 38·63 per cent. as compared with 2·05 per cent. in 1914.

Sputum Examination.—All cases, on admission, have their sputum examined for the presence or absence of tubercle bacilli, and if this is found negative on the first examination at least two more are taken on successive days. In cases when the sputum is negative or there is no sputum, the urine and fæces are examined for the presence of tubercle bacilli. The sputum is also always examined before each report is sent to the County Medical Officer. Altogether 1,124 examinations were made in 1933.

We have continued to use Sanocrysin and collosal antimony in suitable cases, and are now trying Solganol B. Oleosum.

We have tried the sedimentation test in many cases. It seems to be of some prognostic value if a series is taken of the same case.

Staff.—Speaking generally, we have been very free from staff illness during the year, and no member of the staff has contracted tuberculosis.

Refuse Destructor.—A new refuse destructor was installed on 14th December, 1933, and is working well.

Staff Quarters.—The new quarters for staff, which have been greatly needed, were opened on 8th June, 1933, by Mrs. County Alderman Barnes, Chairman of the Sanatoria House Committee. The extension afforded much needed extra accommodation for 25 nurses, two sick rooms (two beds), general sitting-room for sisters, large recreation room for nurses, and sitting-room for sister tutor.

Nurses' Training School.—The County Sanatorium, Clare Hall, has been approved by the General Nursing Council as a training school for the Preliminary State Examination. After passing this examination it is intended that probationer nurses shall be transferred to one of the County Council's general hospitals for completion of their training.

During 1933 one nurse obtained the certificate of the Tuberculosis Nurses Association.

A Sister Tutor, Miss T. Whittle, has been appointed, and commenced duties on 1st September, 1933.

Chaplain.—The Rev. A. D. H. Stewart, Vicar of Ridge, has been appointed Chaplain, and held his first service on 1st October, 1933.

STATISTICAL SURVEY OF THE WORK CARRIED OUT DURING 1933 UNDER THE COUNTY TUBERCULOSIS SCHEME.

The tables appearing on the pages which follow are those prescribed by the Ministry of Health for the purpose of the annual statistical returns of the authority. These returns present in numerical form a very complete picture of the scope and amount of work carried out in connection with the County Council's scheme for the prevention and treatment of tuberculosis.

Tables A and B refer to the work of the dispensaries ; tables C, D and E relate to the amount of accommodation available and the extent of treatment afforded ; table F gives information as to the results of observation of doubtful cases, and table G the immediate results of treatment of definitely tuberculous persons. Table H aims at exhibiting statistically the after-history and ultimate fate of all tuberculous persons who have come under public medical treatment.

In order to appreciate the information contained in these tables, it is necessary to have in mind the precise meaning of the terms occurring therein, many of which are used in a special sense. Information on this matter is given below.

DEFINITIONS AND CLASSIFICATION.—Patients diagnosed as suffering from pulmonary tuberculosis are placed in the following categories :—

Class T.B. minus, viz., cases in which tubercle bacilli have never been demonstrated in the sputum ; and

Class T.B. plus, viz., cases in which tubercle bacilli have at any time been found. It should be noted that a patient originally in *Class T.B. minus* must be transferred to *Class T.B. plus* at any stage in the course of treatment if and when tubercle bacilli are found ; while, on the other hand, a patient who is once placed in *Class T.B. plus* can never revert to *Class T.B. minus*. *Class T.B. plus* is further subdivided into three groups as follows :—

Group I.—Cases with slight constitutional disturbance, if any, *e.g.*, there should not be marked acceleration of pulse nor elevation of temperature except of very transient duration ; gastro-intestinal disturbance or emaciation, if present, should not be excessive.

The obvious physical signs should be of very limited extent as follows :—Either present in one lobe only and, in the case of an apical lesion of one upper lobe, not extending below the second rib in front, or not exceeding an equivalent area in any one lobe ; or where these physical signs are present in more than one lobe, they should be limited to the apices of the upper lobes and should not extend below the clavicle and the spine of the scapula.

No complication (tuberculous or other) of prognostic gravity should be present. A small area of dry pleurisy does not exclude a case from this group.

Group III.—Cases with profound systemic disturbance or constitutional deterioration, with marked impairment of function, either local or general, and with little or no prospect of recovery.

All cases with grave complications, whether tuberculous or not, are classified in this group, *e.g.*, diabetes, tuberculosis of larynx or intestine, &c.

Group II.—All cases which cannot be placed in Groups I and III.

Patients suffering from non-pulmonary tuberculosis are classified according to the site of the lesion as follows :—

(1) Tuberculosis of bones and joints.
(2) Abdominal tuberculosis (*i.e.*, tuberculosis of peritoneum, intestines or mesenteric glands).
(3) Tuberculosis of other organs.
(4) Tuberculosis of peripheral glands.

Patients suffering from multiple lesions are classified in one sub-group only, viz., in that applicable to the case which stands highest in the table.

Observation Cases.—Persons attending at, or in connection with, the dispensaries, in whose cases the tuberculosis officer cannot, within a period of one month from his first examination of the case, come to a definite diagnosis after physical examination and the application of the necessary tests. (These cases appear on Table A, under sections A (*b*) and B (*b*).)

Quiescent.—Cases which have no symptoms of tuberculosis and no signs of tuberculous disease except such as are compatible with a completely healed lesion, and in which sputum, if present, is free from tubercle bacilli.

Arrested.—In pulmonary cases the term " arrested " is applied only to cases which have been " quiescent " for a period of at least two years.

In non-pulmonary cases the term " arrested " is used as soon as there is reason to believe that the disease is unlikely to recur.

Recovered.—No patient is deemed to be " recovered " until in the case of pulmonary tuberculosis, five years, and, in the case of non-pulmonary tuberculosis, three years, have elapsed without any symptoms of active disease (*i.e.*, arrest has been maintained for three years).

TABLE A.

Return showing the work of the Dispensaries during the Year 1933.

Diagnosis.	Pulmonary.				Non-Pulmonary.				Total.				Grand Total
	Adults.		Children.		Adults.		Children.		Adults.		Children.		
	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	
A.—*New Cases* examined during the year (excluding contacts) :—													
(*a*) Definitely tuberculous ...	645	488	14	19	56	46	39	38	701	534	53	57	1,345
(*b*) Diagnosis not completed ...	—	—	—	—	—	—	—	—	4	5	4	—	13
(*c*) Non-tuberculous	—	—	—	—	—	—	—	—	552	566	228	168	1,514
B.—*Contacts* examined during the year :—													
(*a*) Definitely tuberculous ...	25	38	12	3	—	—	3	1	25	38	15	4	82
(*b*) Diagnosis not completed ...	—	—	—	—	—	—	—	—	1	—	—	1	2
(*c*) Non-tuberculous	—	—	—	—	—	—	—	—	139	320	296	265	1,020
C.—*Cases* written off the Dispensary Registers as :—													
(*a*) Recovered	104	70	37	20	15	21	38	21	119	91	75	41	326
(*b*) Non-tuberculous (including any such cases previously diagnosed and entered on the Dispensary Registers as tuberculous)	—	—	—	—	—	—	—	—	710	892	533	442	2,577
D.—*Number of Cases* on Dispensary Registers on 31st December :—													
(*a*) Definitely tuberculous ...	2,016	1,562	133	103	206	219	259	206	2,222	1,781	392	309	4,704
(*b*) Diagnosis not completed ...	—	—	—	—	—	—	—	—	5	5	4	1	15

1. Number of cases on Dispensary Registers on 1st January	4,814	2. Number of cases transferred from other areas and cases returned after discharge under Head 3 in previous years ...	260
3. Number of cases transferred to other areas, cases not desiring further assistance under the scheme, and cases "lost sight of"	680	4. Cases written off during the year as Dead (all causes)	748
5. Number of attendances at the Dispensaries (including Contacts)	14,258	6. Number of Insured Persons under Domiciliary Treatment on 31st December	63
7. Number of consultations with medical practitioners :— (*a*) Personal ... ... (*b*) Other	 616 4,129	8. Number of visits by Tuberculosis Officers to homes (including personal consultations)	1,097
9. Number of visits by Nurses or Health Visitors to homes for Dispensary purposes	14,878	10. Number of :— (*a*) Specimens of sputum, etc., examined (*b*) X-ray examinations made in connection with Dispensary work	 1,938 818
11. Number of "Recovered" cases restored to Dispensary Registers and included in A (*a*) and A (*b*) above	8	12. Number of "T.B. plus" cases on Dispensary Registers on 31st December ...	2,633

TABLE B.

Number of Dispensaries for the treatment of Tuberculosis.

Provided by the Council	14
Provided by Voluntary Bodies	Nil

TABLE C.*

Number of Beds available for the treatment of Tuberculosis on 31st December in Institutions belonging to the Council.

Name of Institution.	For Pulmonary Cases.		For Non-Pulmonary Cases.		Total.
	Adults.	Children under 15.	Adults.	Children under 15.	
County Sanatorium, Harefield	262	64	—	—	326
County Sanatorium, Clare Hall	186	—	—	—	186
Poor Law Institutions.					
North Middlesex County Hospital ..	19	1	3	2	25†
Central Middlesex County Hospital ..	17	—	1	—	18
Redhill County Hospital	—	—	—	1	1
Redhill Institution	3	—	—	—	3
Hillingdon County Hospital	9	1	—	1	11
West Middlesex County Hospital ..	33	—	2	1	36

---

* All institutions belonging to the Authority which are being used for the treatment of tuberculosis are included. Any of them which have not been appropriated for Public Health purposes and are being administered by the Public Assistance Committee are shown separately under the title of "Poor Law Institutions."

"Number of beds available," means the total number of beds in the Institution used for the purpose, whether they are all occupied or not, and whether they are occupied by patients from the area of the Authority, or are leased to or used by other Authorities.

† 20 balcony beds (in addition to above) available in good weather only.

TABLE D—(*a*).

Return showing the extent of Residential Treatment and Observation during the year in Institutions (other than Poor Law Institutions) approved for the treatment of Tuberculosis.

	In Institutions on Jan. 1st.	Admitted during the year.	Discharged during the year.	Died in the Institutions.	In Institutions on Dec. 31st.
Number of doubtfully tuberculous cases admitted for observation—					
Adults—					
Males	1	31	32	—	—
Females	—	38	36	—	2
Children	7	76	81	—	2
Total	8	145	149	—	4
Number of definitely tuberculous patients admitted for treatment—					
Adults—					
Males	405	824	631	155	443
Females	317	616	495	100	338
Children	190	156	169	6	171
Total	912	1,596	1,295	261	952
GRAND TOTAL.. ..	920	1,741	1,444	261	956

TABLE D—(*b*).

Return showing the number of patients admitted for not more than three nights for artificial pneumothorax refills.

Patients admitted for not more than three nights for artificial pneumothorax refills.	Total number of individual patients treated during the year 1933.	Number of admissions during the year.	Number of discharges during the year.
Adults—			
Males	—	—	—
Females	2	5	5
Children—Females	1	2	2
Total	3	7	7

TABLE E.

Return showing the extent of Residential Treatment provided during the year in Poor Law Institutions for persons chargeable to the Council.

Number of patients suffering from tuberculosis admitted for treatment.	In Institutions on Jan. 1st.	Admitted during the year.	Discharged during the year.	Died in the Institutions.	In Institutions on Dec. 31st.
(*a*) Pulmonary.					
Adults—					
Males	30	339	215	125	29
Females	50	293	213	87	43
Children	4	18	12	8	2
Total	84	650	440	220	74
(*b*) Non-pulmonary.					
Adults—					
Males	5	57	44	15	3
Females	5	61	51	12	3
Children	6	77	48	29	6
Total	16	195	143	56	12
GRAND TOTAL ..	100	845	583	276	86

TABLE F.

Return showing the results of observation of doubtfully tuberculous cases discharged during the year from Institutions approved for the treatment of Tuberculosis.

Diagnosis on discharge from observation.	For Pulmonary Tuberculosis.						For Non-Pulmonary Tuberculosis.						TOTALS.		
	Stay under 4 weeks.			Stay over 4 weeks.			Stay under 4 weeks.			Stay over 4 weeks.					
	M.	F.	Ch.	M.	F.	Ch.	M.	F.	Ch.	M.	F.	Ch.	M.	F.	Ch.
Tuberculous	10	15	26	1	1	1	—	—	—	—	—	1	11	16	28
Non-tuberculous.. ..	21	10	44	—	—	5	—	—	—	—	2	2	21	12	51
Doubtful	—	7	2	—	—	—	—	1	—	—	—	—	—	8	2
TOTALS	31	32	72	1	1	6	—	1	—	—	2	3	32	36	81

TABLE G.

Return showing the immediate results of treatment of definitely tuberculous patients discharged during the year from Institutions approved for the treatment of Tuberculosis.

Classification on admission to the Institution.	Condition at time of Discharge.	Duration of Residential Treatment in the Institution. Under 3 months.			3-6 months.			6-12 months.			More than 12 months.			Totals.			GRAND TOTALS.
		M.	F.	Ch.	M.	F.	Ch.	M.	F.	Ch.	M.	F.	Ch.	M.	F.	Ch.	
PULMONARY TUBERCULOSIS.																	
Class T.B. minus	Quiescent	23	18	5	33	22	9	6	8	15	1	—	3	63	48	32	143
	Not quiescent	20	28	5	24	12	6	4	7	4	4	1	1	52	48	16	116
	Died in Institution	5	—	—	—	—	—	—	1	—	1	—	—	6	1	—	7
Class T.B. plus, Group I	Quiescent	12	12	—	20	10	2	7	12	1	—	—	—	39	34	3	76
	Not quiescent	45	26	1	74	58	—	35	27	—	12	3	1	166	114	2	282
	Died in Institution	9	6	—	11	6	—	4	6	—	4	1	—	28	19	—	47
Class T.B. plus, Group II ..	Quiescent	9	5	—	12	13	—	3	7	—	2	—	—	26	25	—	51
	Not quiescent	47	35	2	84	52	2	36	35	1	15	9	—	182	131	5	318
	Died in Institution	28	17	—	21	15	1	9	12	1	9	4	—	67	48	2	117
Class T.B. plus, Group III ..	Quiescent	2	1	—	2	1	—	—	—	—	2	—	—	6	2	—	8
	Not quiescent	13	7	1	21	17	—	9	10	—	4	4	—	47	38	1	86
	Died in Institution	23	14	—	12	5	—	9	5	—	3	2	—	47	26	—	73
NON-PULMONARY TUBERCULOSIS.																	
Bones and Joints	Quiescent	2	1	6	1	1	6	1	3	5	16	4	19	20	9	36	65
	Not quiescent	3	3	1	2	1	5	1	7	2	3	4	12	9	15	20	44
	Died in Institution	—	1	1	3	—	1	—	1	1	1	1	—	4	3	3	10
Abdominal	Quiescent	—	2	—	—	5	4	1	—	6	—	2	—	1	9	10	20
	Not quiescent	1	5	4	1	—	1	—	1	2	—	2	—	2	8	7	17
	Died in Institution	1	—	1	—	1	—	—	—	—	—	—	—	1	1	1	3
Other Organs	Quiescent	1	—	—	1	1	—	2	1	2	1	1	—	5	3	2	10
	Not quiescent	5	4	1	1	—	2	3	—	4	—	—	—	9	4	7	20
	Died in Institution	1	—	—	1	—	—	—	1	—	—	1	—	2	2	—	4
Peripheral glands	Quiescent	—	1	—	1	1	6	—	2	12	—	1	4	1	5	22	28
	Not quiescent	1	1	2	1	—	1	—	1	2	1	—	1	3	2	6	11
	Died in Institution	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

TABLE H.—(*a*) Pulmonary Tuberculosis.

Annual Return showing in summary form (*a*) *the condition at the end of* 1933 *of all patients remaining on the Dispensary Registers; and* (*b*) *the reasons for the removal of all cases written off the Registers. The Table is arranged according to the years in which the patients were first entered on the Dispensary Registers as definite cases of pulmonary tuberculosis, and their classification at that time.*

Condition at the time of the last record made during the year to which the return relates.	Previous to 1926.					1926.					1927.					1928.					1929.					1930.					1931.					1932.					1933.				
	Class T.B. minus.	Class T.B. plus.				Class T.B. minus.	Class T.B. plus				Class T.B. minus.	Class T.B. plus.				Class T.B. minus.	Class T.B. plus.				Class T.B. minus.	Class T.B. plus.				Class T.B. minus.	Class T.B. plus.				Class T.B. minus.	Class T.B. plus.				Class T.B. minus.	Class T.B. plus.				Class T.B. minus.	Class T.B. plus.			
		Group 1.	Group 2.	Group 3.	Total (Class T.B. plus).		Group 1.	Group 2.	Group 3.	Total (Class T.B. plus).		Group 1.	Group 2.	Group 3.	Total (Class T.B. plus).		Group 1.	Group 2.	Group 3.	Total (Class T.B. plus).		Group 1.	Group 2.	Group 3.	Total (Class T.B. plus).		Group 1.	Group 2.	Group 3.	Total (Class T.B. plus).		Group 1.	Group 2.	Group 3.	Total (Class T.B. plus).		Group 1.	Group 2.	Group 3.	Total (Class T.B. plus).		Group 1.	Group 2.	Group 3.	Total (Class T.B. plus).
(a) Remaining on Dispensary Registers on 31st Dec.																																													
Disease Arrested—																																													
Adults—																																													
Males	61	51	31	1	83	7	9	6	1	16	9	13	5	—	18	16	12	8	—	20	27	33	14	1	48	35	28	11	1	40	18	14	5	—	19	—	—	—	—	—	—	—	—	—	—
Females	25	14	9	—	23	7	9	6	1	16	8	5	3	—	8	20	15	11	1	27	37	34	11	2	47	32	15	10	—	25	16	6	7	—	13	—	—	—	—	—	—	—	—	—	—
Children	16	3	1	—	4	12	—	—	1	1	22	—	1	—	1	33	—	—	—	—	21	—	—	—	—	18	—	—	—	—	6	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Disease not Arrested—																																													
Adults—																																													
Males	5	43	65	9	117	1	15	11	2	28	1	24	14	4	42	4	15	12	1	28	10	42	34	2	78	13	52	48	7	107	47	94	86	12	192	91	141	121	29	291	134	186	153	51	390
Females	4	32	38	3	73	2	12	10	2	24	3	8	13	—	21	3	18	18	3	39	5	25	26	7	58	13	44	30	7	81	66	63	70	5	138	94	98	82	19	199	128	108	139	37	284
Children	—	2	1	1	4	1	—	1	—	1	1	—	1	—	1	3	—	1	—	1	1	—	—	—	—	3	—	1	—	1	26	7	4	1	12	40	4	2	—	6	36	3	1	4	8
Condition not ascertained during the year	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total on Dispensary Registers at 31st Dec.	111	145	145	14	304	30	45	34	7	86	44	50	37	4	91	79	60	50	5	115	101	134	85	12	231	114	139	100	15	254	179	184	172	18	374	225	243	205	48	496	298	297	293	92	682
(b) Not now on Dispensary Registers and reasons for removal therefrom.																																													
Discharged as Recovered—																																													
Adults—																																													
Males	497	203	70	8	281	20	18	2	—	20	21	15	4	—	19	8	6	3	—	9	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Females	408	82	25	6	113	36	4	7	2	13	22	13	2	—	15	12	7	1	—	8	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Children	322	8	3	—	11	24	1	—	—	1	18	—	—	—	—	13	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Lost sight of, or otherwise removed from Dispensary Registers	793	393	314	92	799	185	112	82	19	213	143	122	85	27	234	146	117	87	28	232	152	108	69	18	195	122	100	79	22	201	136	92	81	23	196	81	73	60	26	159	44	23	20	15	58
Dead—																																													
Adults—																																													
Males	125	227	401	405	1,033	36	78	135	108	321	21	81	121	85	287	22	81	124	84	289	16	91	122	84	297	29	73	133	91	297	17	67	114	72	253	14	30	78	69	177	5	11	46	44	101
Females	66	119	225	249	593	30	36	110	90	236	26	63	108	66	237	19	58	119	45	222	20	67	102	64	233	17	63	102	47	212	20	50	79	60	189	17	33	52	50	135	8	9	30	24	63
Children	18	8	10	12	30	3	—	8	7	15	2	3	3	2	8	2	1	3	3	7	2	1	3	4	8	2	1	2	—	3	1	—	—	2	2	4	—	—	1	1	1	—	—	2	2
Total written off Dispensary Registers	2,229	1,040	1,048	772	2,860	334	249	344	226	819	253	297	323	180	800	222	270	337	160	767	190	267	296	170	733	170	237	316	160	713	174	209	274	157	640	116	136	190	146	472	58	43	96	85	224
Grand Totals	2,340	1,185	1,193	786	3,164	364	294	378	233	905	297	347	360	184	891	301	330	387	165	882	291	401	381	182	964	284	376	416	175	967	353	393	446	175	1,014	341	379	395	194	968	356	340	389	177	906

TABLE H (b).—NON-PULMONARY TUBERCULOSIS.

Annual Return showing in summary form (a) the condition at the end of 1933 *of all patients remaining on the Dispensary Registers; and (b) the reasons for the removal of all cases written off the Registers.*

Condition at the time of the last record made during the year to which the return relates.	Previous to 1926.					1926.					1927.					1928.					1929.					1930.					1931.					1932.					1933.				
	Bones and Joints.	Abdominal.	Other Organs.	Peripheral Glands.	Total.	Bones and Joints.	Abdominal.	Other Organs.	Peripheral Glands.	Total.	Bones and Joints.	Abdominal.	Other Organs.	Peripheral Glands.	Total.	Bones and Joints.	Abdominal.	Other Organs.	Peripheral Glands.	Total.	Bones and Joints.	Abdominal.	Other Organs.	Peripheral Glands.	Total.	Bones and Joints.	Abdominal.	Other Organs.	Peripheral Glands.	Total.	Bones and Joints.	Abdominal.	Other Organs.	Peripheral Glands.	Total.	Bones and Joints.	Abdominal.	Other Organs.	Peripheral Glands.	Total.	Bones and Joints.	Abdominal.	Other Organs.	Peripheral Glands.	Total.
(a) Remaining on Dispensary Registers on 31st Dec.																																													
Disease Arrested—																																													
Adults—																																													
Males	4	1	1	1	7	2	—	1	—	3	3	—	—	—	3	1	1	1	—	3	4	—	1	1	6	10	3	1	—	14	4	3	1	2	10	3	—	1	—	4	—	—	—	—	—
Females	3	—	2	2	7	1	—	1	1	3	3	—	1	1	5	2	3	2	2	9	—	3	—	3	6	8	2	2	1	13	3	4	2	1	10	4	4	—	3	11	—	—	—	—	—
Children	18	—	5	3	26	8		—	5	13	9	5	—	7	21	7	3	1	12	23	15	2	1	6	24	13	9	3	21	46	8	6	4	19	37	2	3	1	11	17	—	—	—	1	1
Disease not Arrested—																																													
Adults—																																													
Males	6	—	3	—	9	—	—	1	—	1	2	—	2	—	4	3	—	—	—	3	6	—	3	—	9	12	1	3	1	17	13	1	4	2	20	12	3	10	8	33	22	4	11	9	46
Females	4	—	5	1	10	3	—	—	—	3	3	2	1	—	6	1	—	2	—	3	2	1	2	—	5	3	3	4	1	11	13	2	3	3	21	17	3	14	8	42	15	16	6	6	43
Children	17	—	2	1	20	3	1	—	1	5	10	1	1	2	14	9	1	—	—	10	23	—	1	1	25	26	1	—	3	30	25	5	2	18	50	28	12	1	16	57	38	8	3	22	71
Condition not ascertained during the year	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total on Dispensary Registers at 31st Dec.	52	1	18	8	79	17	1	3	7	28	30	8	5	10	53	23	8	6	14	51	50	6	8	11	75	72	19	13	27	131	66	21	16	45	148	66	25	27	46	164	75	28	20	38	161
Transferred to Pulmonary ...	4	1	2	4	11	3	—	—	1	4	—	1	2	2	5	1	—	—	3	4	3	—	1	1	5	2	—	—	2	4	—	—	—	—	—	1	—	—	2	3	—	—	—	—	—
(b) Not now on Dispensary Registers and reasons for removal therefrom.																																													
Discharged as Recovered—																																													
Adults—																																													
Males	61	12	17	18	108	5	2	2	—	9	6	1	4	1	12	5	—	1	—	6	2	1	1	1	5	—	—	1	1	2	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Females	29	14	6	19	68	9	4	2	3	18	4	—	2	2	8	9	2	3	2	16	3	4	—	2	9	—	1	—	1	2	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Children	145	49	29	121	344	13	6	3	14	36	10	10	4	15	39	12	7	—	15	34	6	4	1	13	24	1	—	—	3	4	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Lost sight of, or otherwise removed from Dispensary Registers	211	38	56	80	385	47	16	13	34	110	40	16	15	16	87	37	5	8	21	71	44	20	10	23	97	39	18	12	23	92	28	6	14	23	71	24	9	10	15	58	7	4	2	4	17
Dead—																																													
Adults—																																													
Males	23	5	7	1	36	6	2	—	—	8	3	3	2	—	8	7	1	2	—	10	2	3	3	—	8	5	1	1	1	8	6	3	1	1	11	3	3	3	—	9	2	1	1	—	4
Females	15	4	3	1	23	4	1	—	—	5	6	1	—	—	7	6	1	1	—	8	5	2	1	—	8	—	2	1	—	3	4	1	1	1	7	3	3	—	1	7	2	1	1	—	4
Children	19	9	3	1	32	2	4	1	—	7	3	4	—	1	8	4	2	3	1	10	—	—	—	—	—	2	2	1	1	6	5	—	—	—	5	4	1	1	—	6	1	2	—	—	3
Total written off Dispensary Registers	503	131	121	241	996	86	35	21	51	193	72	35	27	35	169	80	18	18	39	155	62	34	16	39	151	47	24	16	30	117	43	10	16	25	94	34	16	14	16	80	12	8	4	4	28
GRAND TOTALS of (a) and (b) (excluding those transferred to Pulmonary)	555	132	139	249	1,075	103	36	24	58	221	102	43	32	45	222	103	26	24	53	206	112	40	24	50	226	119	43	29	57	248	109	31	32	70	242	100	41	41	62	244	87	36	24	42	189

In the first column of Table H (a) on pages 89–90 are grouped those persons who first came under public medical treatment previous to 1926. By the end of 1933, therefore, every member of this group then living had been under observation for at least eight years, and the majority for considerably longer periods. The total number of pulmonary cases in the group under consideration is 5,504, but of these a large number, 1,592, have been lost sight of, either on account of their having left the County, or because they have signified they no longer desire public medical treatment, or for a variety of other reasons. Deducting this number, there remains a balance of 3,912 patients, the condition of whom was known at the end of 1933.

These may be analysed as follows :—

PULMONARY TUBERCULOSIS. Class.	Total number for whom record is available.	Discharged as Recovered.		Disease arrested.		Dead.		Disease not arrested.	
		No.	Per cent.	No.	Per cent.	No.	Per cent.	No.	Per cent.
T.B. minus ..	1,547	1,227	79	102	6	209	14	9	1
T.B. plus, Gp. I	792	293	37	68	8	354	45	77	10
T.B. plus, Gp. II	879	98	11	41	5	636	72	104	12
T.B. plus, Gp. III	694	14	2	1	0·1	666	96	13	1·9
All Classes ..	3,912	1,632	42	212	5	1,865	48	203	5

VENEREAL DISEASES.

In the "survey" annual report for the year 1930, detailed particulars were set out of the scheme for the treatment of venereal diseases. Since that year no essential alterations in the scheme have taken place. The extent to which Middlesex patients have utilised the individual hospitals included in the scheme is shown in the table on page 94 ,and a comparative statement of the work carried out during the past five years is given on page 95. These tables relate only to Middlesex residents, although in the case of the Prince of Wales's Hospital, Tottenham, the County Council has borne the expense of the treatment of 76 new patients not resident in the County.

The total number of Middlesex new patients dealt with during the year was 2,831, a decrease of 58 on the total for 1932. Of these cases, 417 were suffering from syphilis (a decrease of 128), 13 from soft chancre (a decrease of 2), 1,187 from gonorrhoea (an increase of 63), whilst 1,214 (an increase of 9) were found not to be suffering from venereal disease. The attendances of Middlesex patients totalled 88,684 (an increase of 11,964), and the number of in-patient days of treatment was 3,485 (an increase of 392).

The extent of the work carried out under the Joint Scheme may be judged from the fact that the total number of new cases from all areas dealt with at the London hospitals during 1933 was 28,714 (an increase of 762), of which 4,710 (a decrease of 231) were suffering from syphilis, 12,104 (an increase of 882) gonorrhœa, 195 (an increase of 8) soft chancre, while 11,705 (an increase of 103) were found not to be suffering from venereal disease. The attendances totalled 1,097,214 (an increase of 113,293), and the number of in-patient days of treatment was 52,581 (a decrease of 1,442).

The hospitals where the largest increase in total attendances of Middlesex patients occurred were :—

Royal Northern, increased by 4,763.	St. Mary's, increased by 1,049.
West London, increased by 3,392.	St. Paul's, increased by 871.

Advantage has been taken of the useful facilities provided by the inclusion within the scheme of hostels for young women. Thirteen Middlesex women (a decrease of 3) in an infective condition were accommodated during their pregnancies, and occupied beds for an aggregate of 2,256 days (an increase of 234) or 8·7 per cent. of the total of all participating authorities.

The number of doctors practising in Middlesex who applied during 1933 to be placed on the approved list, enabling them to receive free supplies of arsenobenzene compounds, was ten. The total number now is 97. In addition to these, there is a considerable number of doctors in London, by many of whom Middlesex residents would be treated, who also are on the list of approved practitioners.

The Prince of Wales's General Hospital, Tottenham.—The subject of the agreement between the County Council and the Governors of the Prince of Wales's Hospital, Tottenham, under which a clinic for the diagnosis and treatment of venereal diseases is carried on at the hospital on behalf of the County Council, was under discussion during the year. The premises have never been very suitable for the purpose for which they are used, and of late years the need for more adequate and suitable accommodation, and improved arrangements for medical and nursing attendance, have become pressing.

The Governors of the hospital put forward proposals to the effect that, subject to approval on terms, they were prepared to erect and equip a specially-designed department for the accommodation of a venereal diseases' clinic, and to undertake a complete reorganisation of the medical and nursing arrangements at the clinic.

Conferences were held between representatives of the hospital and the County Council regarding these proposals, and the matter was still under consideration at the close of the year.

Statement of Work done by individual Hospitals in connection with Middlesex Patients during 1933.

Hospital.	New Cases.					Total attendances.	No. of in-patient days.	Arsenobenzene compounds. Doses given.
	Syphilis.	Soft Chancre.	Gonorrhœa.	Conditions other than venereal.	Total.			
Gt. Ormond Street ..	13	—	4	106	123	858	492	213
Guy's	10	—	20	28	58	1,076	52	125
King's College	—	—	1	—	1	15	—	—
L.C.C. Clinic, Whitechapel	6	—	21	11	38	1,860	—	101
Metropolitan	—	—	8	8	16	980	5	37
Middlesex	23	1	77	14	115	5,677	234	184
Royal Free	7	—	65	71	143	2,565	573	195
Royal Northern ..	46	—	227	87	360	15,243	8	966
St. George's	15	3	40	29	87	1,350	113	170
St. Mary's	48	—	121	53	222	5,267	71	670
St. Paul's	13	—	89	61	163	6,768	176	446
St. Thomas's	30	2	78	172	282	6,715	192	344
Seamen's	1	—	—	1	2	5	—	1
South London for Women	—	—	—	2	2	18	—	—
University College ..	26	—	41	3	70	3,877	126	364
West London	112	1	231	429	773	27,221	740	2,830
Westminster	6	—	8	2	16	931	—	64
Salvation Army Mothers	—	—	29	6	35	739	305	—
Children's, Waddon ..	—	—	—	—	—	—	184	—
Joint London Hospitals, Totals..	356	7	1,060	1,038	2,506	81,165	3,271	6,710
*Prince of Wales's, Tottenham	61	6	127	131	325	7,519	214	672
Grand Total ..	417	13	1,187	1,214	2,831	88,684	3,485	7,382

* These figures do not include 76 new cases not residents of the County but treated at the hospital, the cost being borne by the Middlesex County Council under agreement with the hospital.

Comparative Statement for the Past Five Years.

	Middlesex Patients treated at									
	London Hospitals.					Prince of Wales's Hospital, Tottenham.*				
	1929.	1930.	1931.	1932.	1933.	1929.	1930.	1931.	1932.	1933.
Number of persons dealt with at the Clinics for the first time and found to be suffering from :—										
Syphilis	380	413	412	440	356	62	79	87	105	61
Soft chancre	1	5	5	13	7	2	—	2	2	6
Gonorrhœa	1,010	943	881	1,032	1,060	99	98	89	92	127
Conditions other than venereal	661	961	1,079	1,099	1,083	113	102	94	106	131
Totals	2,052	2,322	2,377	2,584	2,506	276	279	272	305	325
Total attendances	51,877	59,168	62,044	69,760	81,165	5,068	6,085	6,411	6,960	7,519
Number of "in-patient" days of treatment	2,154	2,588	3,618	2,778	3,271	100	42	175	315	214
Number of doses of arsenobenzene compounds given ..	3,881	4,479	5,565	6,091	6,710	437	598	613	818	672

* These figures do not include patients not residents of the County, but treated at the hospital, the cost being borne by the Middlesex County Council under the agreement with the hospital.

APPENDICES.

I.—Annual Report by Dr. Ivor Lewis, Medical Superintendent of North Middlesex County Hospital.

II.—Annual Report by Dr. J. N. Deacon, Medical Superintendent of Redhill County Hospital.

III.—Annual Report by Dr. W. E. Turner, Medical Superintendent of Central Middlesex County Hospital.

IV.—Annual Report by Dr. J. B. Cook, Medical Superintendent of West Middlesex County Hospital.

V.—Annual Report by Dr. R. Rutherford, Medical Superintendent of Hillingdon County Hospital.

APPENDIX I.

ANNUAL REPORT OF THE WORK OF THE NORTH MIDDLESEX COUNTY HOSPITAL DURING 1933, PREPARED BY THE MEDICAL SUPERINTENDENT.

Staff.

(*as on* 31*st December*, 1933).

WHOLE-TIME MEDICAL STAFF.

Medical Superintendent—

Ivor Lewis, M.D., M.S., D.P.H.

Deputy Medical Superintendent—

A. W. Gregorson, M.D., Ch.B., F.R.F.P.S.

Physician—

C. Allan Birch, M.D., M.R.C.P., D.P.H.

Surgeon—

R. L. Galloway, M.B., Ch.B., F.R.C.S.

Assistant Medical Officers—

K. A. Hudson, M.B., Ch.M.
H. O. Blauvelt, M.D., C.M., F.R.C.S.
P. J. Nagle, M.B., B.Ch., B.A.O.
A. R. K. Burne, M.B., Ch.M., F.R.C.S.
M. Coke, M.R.C.S., L.R.C.P.
A. Burkhardt, M.B., B.S.
E. B. Jackson, M.B., B.S., M.R.C.P.
Miss E. A. Pennycuick, M.B., Ch.B.

VISITING MEDICAL STAFF.

Laryngologists—

L. G. Brown, *M.C.*, M.A., M.D., F.R.C.S.
F. D. Cairns, M.B., Ch.B., F.R.C.S.

Ophthalmic Surgeon—

Miss F. Ramsay, M.D., B.S., D.P.H., D.O.M.S.

Radio-therapist.

B. Windeyer, M.B., B.S., F.R.C.S.

Radiologists—

E. E. Holdsworth, M.B., Ch.B., D.M.R.E.
N. P. Henderson, M.B., Ch.B., D.M.R.E.

Electro-therapist.

P. Figdor Ashton, M.B., Ch.B.

Pathologist—

T. H. C. Benians, F.R.C.S.

Anaesthetists—

F. P. de Caux, L.R.C.P., M.R.C.S.
J. H. T. Challis, L.R.C.P., M.R.C.S.

Dental Surgeon—

G. E. Royston, L.D.S., R.C.S.

NURSING STAFF.

Resident.

Matron—

Miss L. F. Dykes.

Administrative Sisters	8	Staff Nurses	23
Departmental Sisters	5	Staff-Nurse-Midwifery Pupils	64
Ward and Night Sisters	33	Probationer Nurses	133

Non-resident.

Masseuses	8	Mental Nurses	7
Male Nurses	16	Assistant Nurses	32

Steward—

D. E. Bell.

Chaplain—

Rev. H. C. Scott.

General Observations.

For the most part remarks on the hospital work during the year are made under the various departmental headings. Certain observations of a more general nature, however, are most conveniently made here.

There were important changes on the staff during the year. The new Medical Superintendent, Mr. Ivor Lewis, and the new Matron, Miss L. F. Dykes, were appointed in January and took up their duties on 1st April and 18th March, respectively. In August, the Hospital lost a most valued officer in the person of Mr. J. G. Hendry, who had served the hospital so long and faithfully as Steward. The vacant post was filled in November by the promotion of Mr. D. E. Bell, Deputy Steward.

During the year also the Committee created a new senior appointment—that of Physician. Dr. C. Allan Birch, M.D., M.R.C.P., was appointed to this office and took up duties in September.

Bed accommodation has been somewhat short throughout, particularly during the winter months. The pressure reached its peak on 2nd February, on which day the number of patients was 1,068. Even in the summer months, when usually one expects to be able to close two wards for cleaning, it was only with the greatest difficulty this year that one was closed. Only by discharging a great many patients, long before they normally should be, were we able to carry on at all during the worst periods. The day-to-day total bed returns often give a misleading idea of available accommodation. Empty beds in a babies' or maternity ward, for example, cannot be used for general cases, nor those in a mental ward for surgical cases.

In view of the fact that we often have 40 admissions a day, the old receiving rooms had become quite inadequate and, accordingly, temporary accommodation was converted adjacent to the out-patient department, with four examining cubicles and equipment for proper examination of all patients on admission. At the same time the receiving room was staffed by trained nurses under a whole-time sister. In the New Year, these provisions will probably be still further improved by the appointment of a medical officer as full-time casualty and receiving room officer.

The arrangements, however, can only be considered of a temporary character and the need for improvement in the facilities available at the hospital for this and other sections of the hospital work is fully appreciated by the Committee.

Post-graduates have continued to visit the hospital, attending the ward practice and in the operating theatres, as well as the post-graduate lectures and demonstrations held in association with the Fellowship of Medicine.

The training of nurses has been improved and partly reorganised during the year. The preliminary training school for new probationers is working well and producing good results. The following is a summary of nurses' examination successes in 1933 :—

	Successes.	*Total Entries.*
State Examination, Final	20	24
,, ,, Preliminary	26	38
Central Midwives Board	38	41
County Nurses' Examination	22*	27

* Including one gold and one silver medal.

Statistical Tables for the Year ended 31st December, 1933.

	Patients.	*Staff.*	
Remaining in hospital, 1st January, 1933	877	2	
Admitted during the year	10,628	150	
Born in hospital	1,184	—	
			12,841
Discharged	10,077	148	
Died	1,694	1	
Patients treated to a conclusion during the year ..			11,920
Remaining in hospital, 31st December, 1933.. ..	918	3	921

I.—TABLE SHOWING HOW THE 11,920 PATIENTS TREATED TO A CONCLUSION DURING THE YEAR WERE ORIGINALLY ADMITTED.

By order of Clerk, County Medical Officer, Director of Public Assistance, or Local Public Assistance Officer	22
By Relieving Officers' orders	5,642
By Medical Superintendent—	
Births	1,149
Police cases (other than accidents)	87
Accidents	884
Maternity cases (emergency)	147
Other urgent cases	3,540
Transfers from Institution or Home—M.C.C.	168
Transfers from hospital—M.C.C.	72
Transfer from hospital or institution—other authority	153
By agreement with another authority	56
	11,920

II.—TABLE SHOWING THE DISTRICTS TO WHICH THE 11,920 PATIENTS TREATED BELONGED.

Edmonton	3,154
Enfield	1,835
Southgate	830
Tottenham	3,285
Wood Green	1,038
Finchley	93
Hornsey	1,205
Other districts of Middlesex	131
Essex	121
Hertfordshire	221
Other counties	7
	11,920

III.—TABLE SHOWING THE RESULTS OF TREATMENT OR THE TERMINATION, TOGETHER WITH ANALYSES OF DEATHS IN AGE AND OTHER GROUPS.

Relieved	9,335	78·31 per cent.
Unrelieved	890	7·47 ,,
Died	1,695	14·22 ,,
	11,920	100·0 ,,

Analysis of Deaths in Age Groups.

Ages.	Male.	Female.	Total.
Under 1 year	101	72	173
1– 2 years	15	8	23
2– 5 years	11	6	17
5–15 years	14	26	40
15–25 years	29	40	69
25–35 years	45	43	88
35–45 years	67	60	127
45–55 years	84	86	170
55–65 years	148	116	264
65–75 years	183	165	348
Over 75 years	165	211	376
	862	833	1,695

Deaths within 24 hours of admission	249	(14·49 per cent.).
" 24 to 48 " " "	107	(6·31 ").
" 48 to 72 " " "	109	(6·42 ").
	465	
All other deaths	1,230	(72·57 ").
Total	1,695	

The 249 deaths which occurred within 24 hours of admission may be classified as follows :—

Injuries	29
Terminal stage :—	
Acute diseases	109
Chronic diseases	89
Other deaths within 24 hours	22
	249

IV.—DISCHARGES.

Number of patients discharged to the out-patients' department	1,775
Number of patients transferred—	
(*a*) To mental hospitals	307
(*b*) Infectious diseases hospitals	28
(*c*) To convalescent homes	181
(*d*) To other hospitals	443

V.—AVERAGES DURING THE YEAR.

Beds, average daily number occupied	926·2
Patients per occupied bed, average number	12·9
Admissions, average daily number	32·78
Stay, average length in days per patient	28·4

Maximum number of beds occupied = 1,068 on 2nd February.
Minimum number of beds occupied = 827 on 30th September.

VI.—Classification of the Diseases and Conditions for which the 11,920 Patients were Primarily Treated.

Disease or Condition.	Males.			Females.			Infants.			Totals.
	Relieved.	Unrelieved.	Died.	Relieved.	Unrelieved.	Died.	Relieved.	Unrelieved.	Died.	
Births	—	—	—	—	—	—	1,086	—	105	1,191
Infants with mothers	—	—	—	—	—	—	1	—	—	1
No disease	15	10	—	7	2	—	19	4	—	57
Diseases caused by infection—										
Diphtheria, erysipelas, scarlet fever, cerebro-spinal fever	5	1	—	6	2	1	5	7	—	27
Measles, varicella, pertussis, mumps	1	—	—	1	—	—	9	—	—	11
Septicæmia, pyæmia, tetanus	2	—	8	2	—	6	5	—	2	25
Typhoid fever	2	—	—	—	—	—	1	—	—	3
Influenza, influenzal pneumonia	59	—	5	78	—	7	34	—	—	183
Tuberculosis—pulmonary	48	10	31	45	13	22	7	—	5	181
,, non-pulmonary	9	3	6	14	2	4	24	—	17	79
Rheumatism, chorea	29	—	2	54	1	5	71	2	6	170
Venereal disease	8	4	4	1	4	1	2	—	—	24
Diseases due to parasites	5	—	—	—	—	—	4	1	—	10
Diseases of the—										
Nervous system	78	21	53	47	21	42	20	5	16	303
Eye	12	—	—	18	1	1	19	—	—	51
Ear	24	—	2	22	—	—	163	2	1	214
Nose and accessory sinuses	28	—	1	23	—	—	21	2	—	75
Circulatory system—										
Endocarditis	4	—	8	8	—	6	1	1	—	28
Myocarditis	25	4	87	10	7	103	—	—	—	236
Valvular disease of the heart	7	—	5	21	1	13	—	1	2	50
Disordered action of the heart..	24	—	12	26	1	9	1	—	—	73
Heart, other diseases	4	—	1	4	1	—	4	—	—	14
Arterio-sclerosis	24	13	20	8	22	16	—	—	—	103
Cerebral thrombosis	23	2	35	16	6	52	—	—	—	134
Arteries, other diseases..	10	2	5	10	1	4	—	—	—	32
Varicose veins, phlebitis	14	—	1	36	2	3	—	—	—	56
Capillaries	1	—	1	—	—	—	—	—	—	2
Blood, spleen. lymphatics	31	—	7	28	—	4	68	—	1	139
Endocrine glands	1	—	1	8	1	—	—	—	—	11
Breast	—	—	—	32	—	—	—	—	—	32

Disease or Condition.	Males.			Females.			Infants.			Totals.
	Relieved.	Unrelieved.	Died.	Relieved.	Unrelieved.	Died.	Relieved.	Unrelieved.	Died.	
Respiratory system—										
Laryngitis	1	—	—	4	—	—	5	—	—	10
Bronchitis, acute	32	—	5	39	—	7	63	—	—	146
,, chronic	58	2	27	64	2	22	9	—	—	184
Bronchiectasis, asthma	6	—	2	18	1	1	4	1	—	33
Broncho-pneumonia	34	1	48	37	—	51	87	—	44	302
Lobar pneumonia	75	—	26	36	—	12	61	—	2	212
Lungs and other diseases	8	—	3	5	—	—	2	—	—	18
Pleurisy and empyema	55	2	6	28	1	2	12	—	1	107
Digestive system—										
Teeth, gums, lips, mouth, tongue	16	—	—	6	—	—	14	—	2	38
Tonsils	60	2	1	119	—	1	97	—	—	280
Naso-pharynx and pharynx	1	1	—	7	—	1	5	—	—	15
Gastric ulcer (simple)	40	1	7	24	1	2	—	—	—	75
Perforated gastric ulcer	5	—	4	—	—	2	—	—	—	11
Duodenal ulcer (simple)	59	1	2	13	—	—	—	—	—	75
Perforated duodenal ulcer	12	—	7	4	—	—	—	—	—	23
Stomach and duodenum—other conditions	22	2	2	24	1	—	38	—	15	104
Appendicitis, acute	126	—	—	136	1	2	60	1	1	327
,, ,, with local abscess	13	—	1	12	—	2	4	—	—	32
,, ,, ,, general peritonitis	10	—	7	6	—	1	6	—	1	31
,, sub-acute or chronic	55	—	1	68	—	—	15	1	—	140
Intestinal obstruction—										
Constipation	38	3	—	89	1	—	40	—	—	171
Adhesions	9	—	—	5	—	2	2	—	—	18
Band	2	—	—	3	—	—	1	—	—	6
Intussusception	1	—	—	—	—	—	1	—	2	4
Volvulus	1	—	—	—	—	—	—	—	—	1
Others	3	—	1	—	—	3	—	—	—	7
Intestines, other conditions	26	1	2	30	3	7	31	2	2	104
Rectum and anus	53	1	1	23	—	1	5	—	—	84
Pancreas	1	—	4	2	—	—	—	—	—	7
Liver	15	—	—	15	1	1	2	—	1	35
Cholecystitis	7	1	—	28	2	3	—	—	—	41
Cholelithiasis	1	—	2	33	—	2	—	—	—	38
Gall-bladder, other diseases	1	—	—	1	—	—	—	—	—	2

Peritoneum—										
Herniæ (not strangulated)	105	2	5	29	1	—	28	2	1	173
Herniæ, strangulated	15	—	3	19	—	8	2	—	—	47
Other diseases	4	1	2	12	—	1	2	1	2	25
Diseases due to disorders of nutrition or of metabolism	7	1	6	20	1	9	17	3	7	71
Diseases of the generative system	93	4	27	234	3	5	31	—	—	397
Normal and abnormal pregnancy, parturition and puerperium	—	—	—	1,620	111	19	1	—	—	1,751
Diseases of the organs of locomotion	51	6	—	35	1	1	33	1	2	137
Fibrositis group	16	3	—	7	1	1	1	—	—	29
Arthritis deformans	47	1	—	65	5	2	—	—	—	120
Diseases of the areolar tissue and skin	89	1	6	115	3	10	82	2	1	309
Diseases of the urinary organs	87	8	25	71	4	24	44	2	3	268
Injuries—										
Concussion and shock	60	—	—	24	—	—	20	—	1	105
Burns and scalds	7	—	—	11	—	3	34	—	4	59
Fractures and dislocations	260	5	32	139	3	26	86	1	3	555
Other injuries	146	9	3	63	—	2	78	1	—	302
Tumours and cysts—										
Benign	20	3	—	79	3	6	5	—	—	116
Malignant	75	37	124	110	44	131	4	—	3	528
Malformations	—	—	—	—	1	—	—	—	—	1
Poisonings	13	—	3	3	—	2	2	—	—	23
Mental diseases	78	130	6	119	227	20	5	6	1	592
Senile decay	29	16	14	11	16	30	—	—	—	116
Totals	2,541	315	717	4,190	526	724	2,604	49	254	11,920
Grand totals	3,573			5,440			2,907			

VII. DISEASES AND CONDITIONS TREATED TO A CONCLUSION.

(Groups arranged in order of frequency.)

	Treated.	*Died.*
Diseases of the digestive system	1,796	118
Pregnancy, parturition, puerperium	1,732	19
Births	1,086	105
Injuries	947	74
Diseases of the respiratory system	753	259
Diseases of the circulatory system	345	383
Mental diseases	637	71
Diseases caused by septic infection	571	132
Diseases of the nervous system	527	116
Tumours and cysts	380	264
Diseases of the generative system	365	32
Diseases of areolar tissue and skin	292	17
Diseases of the organs of locomotion	273	13
Diseases of the urinary system	216	52
Diseases of blood, spleen and lymphatic system	127	12
Other 8 groups	178	28
Totals	10,225	1,695

1. Department of Surgery.

The surgical work has continued to grow, and has been as varied and "representative" as it is possible to find surgical work anywhere. There is a very large amount of emergency and traumatic surgery. Traumatic surgery again this year perhaps demands a special word or two.

In-Patient Fractures.

On examining the table analysing these cases, the preponderance of male patients is very apparent. The ratio of male to female is roughly two to one. The increased number of male accidents is due partly to the greater proportion of men driving motor vehicles and partly to the fact that it is still men who are chiefly engaged in hazardous occupations. The final stages of the treatment of these cases is becoming more and more the work of the out-patient fracture clinic.

Out-patient Fracture Clinic.

The increased number of patients treated during the year is due to a greater number of in-patients transferred to the clinic on leaving the wards. It has been found that the fracture case needs to be kept under supervision usually for several months, and the follow-up system employed in this department has been shown to give more "good results."

Many injuries other than fracture or dislocation have been treated, but in order to prevent confusion they are not included in the analysis.

Two normal sessions of the fracture clinic are held weekly. In order that the fracture case be controlled as soon as possible, an extra "daily fracture clinic" was inaugurated early in the year. To this clinic, all new out-patient fracture cases are sent, and they are thus brought under the department's care at the earliest possible moment.

The Treatment of Fractures.

The most interesting feature of fracture treatment during the year is the increased use of non-padded plaster splints by all workers. They have been applied in the out-patient department, wards, and operating theatre—practically always with success. Fewer operations have been required on account of their use, and the period of ward treatment has been definitely shortened. Continued supervision is needed, but this has been easily obtained in the fracture clinic.

In the reduction of fractures, which is being done as early as possible, the use of local anæsthesia is less popular than gas and oxygen. Probably this is due to two causes: Firstly, the ease and rapidity attending the use of the latter; secondly, the danger of producing infection when the former method is employed. The presence in the hospital of up-to-date gas and oxygen anæsthesia apparatus, and skilled anæsthetists, have also added to popularity of the method.

Subcapital Fractures of the Femur.

During the year the above injuries, for centuries the outstanding unsolved problem of fracture surgery, have been consistently treated by Royal Whitman's method—namely, reduction under an anæsthetic on a Hawley table, followed by a plaster spica reaching from chest to toes. This method has been followed by bony union in all four cases.

Smith-Petersen's more recent Flanged Nail method is now being used in suitable cases, but it is as yet too soon to assess the results. One's tendency at the moment, however, is to adhere to the Whitman Plaster as the standard, and only to resort to operative methods where the Whitman procedure fails.

Application of Non-padded Plaster Splints.

Fracture.	In Ward.	O.P.D.	Operating Theatre.	Total.
Colles'	19	19	4	42
Ankle	31	1	20	52
Tibia, fibula	73	1	36	110
Foot	21	2	—	23
Femur (neck)	—	—	6	6
Spine	3	—	—	3
Radius, ulna	7	17	6	30
Patella	1	—	—	1
Walking Irons	34	—	—	34
Grand Total	..	..	..	301

In-patients—Analysis of Fracture or Dislocation Cases.

—	Male	Female.	Result			Total.
			Satis-factory.	Bad.	Died.	
Fracture.						
Skull	56	8	53	—	11	64
Mandible	6	—	6	—	—	6
Nose	4	—	4	—	—	4
Vertebræ	12	—	9	2	1	12
Ribs	21	9	24	1	5	30
Clavicle	11	3	13	1	—	14
Humerus	10	20	27	—	3	30
Radius, Ulna, with Colles'	19	19	38	—	—	38
Small bones, hand	17	—	16	1	—	17
Pelvis	12	3	14	—	3	15
Coccyx	1	1	1	1	—	2
Femur	31	39	52	—	18	70
Patella	6	1	6	—	1	7
Ankle	23	29	48	4	—	52
Tibia and/or fibula	59	28	83	3	1	87
Small bones, foot	18	3	21	—	—	21
Multiple	37	10	31	—	16	47
Old	6	7	13	—	—	13
Totals	349	180	458	13	58	529
Dislocation.						
Finger	1	—	1	—	—	1
Elbow	—	1	—	1	—	1
Shoulder	2	7	3	6	—	9
Acromio-clavicular	1	—	1	—	—	1
Hip	3	—	3	—	—	3
Grand Totals	356	188	466	20	58	544

Fracture Clinic—Analysis of Fracture or Dislocation Cases discharged during 1933.

—	Result.				Total.
	Entirely Out-patient.		Formerly In-patient.		
	Good.	Bad.	Good.	Bad.	
Fracture.					
Skull	—	—	10	1	11
Nose	1	—	—	—	1
Hand, fingers	17	2	4	1	24
Colles'	32	6	8	1	47
Radius and/or ulna	46	1	10	1	58
Humerus, shaft	6	—	3	1	10
,, supracondylar	14	—	2	—	16
Clavicle	36	—	7	—	43
Scapula	1	—	1	—	2
Ribs	3	—	3	2	8
Pelvis	—	—	4	—	4
Coccyx	1	—	—	—	1
Femur	—	—	7	2	9
Patella	2	—	2	—	4
Tibia and/or fibula	7	—	25	2	34
Ankle	3	—	20	4	27
Foot, toes	10	—	3	—	13
Totals	179	9	109	15	312
Dislocation.					
Acromio-clavicular	1	—	—	—	1
Shoulder	1	—	—	2	3
Elbow	3	—	1	—	4
Finger	—	1	—	—	1
Grand Totals	184	10	110	17	321

Analysis of Operations performed during the year.

Operations.	In-Patients.		Out-Patients.	Totals.
	Major.	Minor.	Minor.	
On skin and superficial structures	54	194	219	467
On arteries, veins and lymphatics	—	78	—	78
On nerves	—	3	—	3
On bones and joints	87	295	137	519
On muscles, tendons, bursæ and fasciæ	—	33	7	40
Amputations	15	14	—	29
On skull, brain and spine	3	4	—	7
On face	—	17	—	17
On eye	3	15	18	36
On mouth, pharynx and œsophagus	—	24	2	26
On ear, nose and throat	75	314	954	1,343
On thyroid, accessory glands and neck	3	31	9	43
On breast	17	28	—	45
On thorax and contents	36	3	—	39
On abdominal wall and cavity	295	1	—	296
On stomach and duodenum	78	—	—	78
On intestine, rectum and anus	512	94	—	606
On liver, gall bladder, pancreas and spleen	55	—	—	55
On kidney and urinary tract	49	129	—	178
On male generative organs	23	39	123	185
Obstetrical	95	518	—	613
On female generative organs	242	457	—	699
On infants in maternity dept.	2	10	—	12
Totals	1,644	2,301	1,469	5,414
	3,945			

On Skin and Superficial Structures (*248*).

This includes débridement of wounds, incision and drainage abscesses, skin grafts, &c.

Orthopœdic Operations. (*On Bones and Joints* (*411*), *on Muscles, Tendons, Bursæ and Fasciæ* (*33*).)

On Abdominal Wall and Cavity (*296*) (abdominal sections, 99).

Herniotomy	196
Laparotomy	99
Others	1

On Stomach and Duodenum (*78*).

Gastrectomy, Gastrostomy, &c.	8
For peptic ulcer	32
Gastro-enterostomy	36
Others	2

On Intestines, Rectum and Anus (*606*) (abdominal sections, 512).

Appendicectomy without drainage	341
Appendicectomy with drainage	102
Drainage of appendix abscess	22
Anastomosis	12
Enterostomy/colostomy	18
Diverticulectomy	4
Others	107

On Gall-Bladder, Pancreas and Spleen (*55*).

Cholecystectomy/cholecystostomy	50
Splenectomy	3
Others	2

On Kidney and Urinary Tract (*178*) (abdominal sections, 13).

Nephrectomy	8
Transplantation of ureters	1
Nephrotomy/nephrolithotomy	6
Others	163

On Male Generative Organs (*62*).

Supra-pubic prostatectomy	23
Others	39

On Female Generative Organs (*699*) (abdominal sections, 207).

Pan-hysterectomy	5
Total hysterectomy	9
Sub-total hysterectomy	41
Oöphorectomy/salpingectomy/salpingo-oöphorectomy	72
Radium insertions	68
Gillian for retroversion	14
Plastic operations on cervix and vagina	62
Various on tubes, ovaries and uterus	56
Various on vagina and vulva	12
Examinations under anæsthetic	33
Uterine curettage	327

2. Maternity Department.

The work of this department is still as great as ever, and the accommodation cannot be regarded as suitable for the work of a modern maternity hospital. The situation was somewhat palliated by the re-equipping of the labour wards in the spring of this year.

During the year, the nursing staff has been augmented and redistributed. Duties are now more specialised, inasmuch as the labour theatres and the lying-in wards are in charge of different sisters. On the whole the possible slight loss of continuity and clinical interest involved by this system is more than compensated by increased efficiency, and with a large 60-bed department, is probably the only satisfactory solution.

During the year, the practice of " anæsthetics for all " has been most successfully introduced in the department. Chloroform capsules are employed for all patients—except the occasional woman who refuses them. The result has been a very adequate relief of pain, and in the majority of cases probably some shortening of the labour. The tendency has been for the department to take in more and more complicated and abnormal cases. In view of this fact, a death rate of 6 per 1,000 is surprisingly low (8 deaths out of 1,250 cases). Only one of these eight women had attended the ante-natal clinic—a fact which speaks for itself.

The ante-natal clinics have continued to grow and have now attained unwieldy proportions in spite of reference back to district clinics. An extra session for new cases only will be commenced early in the New Year.

Ante-natal Clinic.

Ante-natal sessions held	101
Expectant mothers examined	1,293
Total attendances	7,346
Average number seen per session	72·7
Average number of attendances per expectant mother	5·68
Women referred for dental treatment	354
,, ,, x-ray examination	106

Maternity Ward Block.

In the course of the year 1,254 women were delivered in the department and gave birth to 1,270 children. The following information relates to admissions and discharges during the year :—

	Mothers.		Infants.	
Remaining in hospital 1st January, 1933	57		45	
Admitted during the year	1,358		1,180	
		1,415		1,225
Discharged during the year	1,355		1,085	
Died during the year	8		102	
		1,363		1,187
Remaining in hospital 31st December, 1933		52		38

The 1,363 patients who were discharged or died during the year are classified as follows :—

Delivered	1,254
Aborted (stillbirth not registered)	2
Undelivered	26
Re-admitted	81
Total	1,363

Analysis of the 1,254 *Deliveries during the Year.*

			Per cent.
Mother admitted ..	Via ante-natal clinic	1,003	79·99
	Not via ante-natal clinic ..	251	20·01
	Total	1,254	100
Civil state	Married	1,173	93·54
	Widowed	6	·48
	Unmarried	75	5·98
	Total	1,254	100
Parous state ..	Primipara	612	48·8
	Multipara	642	51·2
	Total	1,254	100
Presentation ..	Vertex—occipito-anterior ..	1,140	
	Vertex—occipito-posterior ..	47	
	Breech—uncomplicated ..	20	
	Breech—complicated	14	
	Face and brow	4	
	Transverse	2	
	Born before admission ..	43	
	Total	1,270	

16 sets of twins included in above.

Table showing the method of Delivery of the 1,270 *Babies Born in the Department.*

Method of delivery.	Number of Births.	Deaths.		
		Maternal.	Fœtal.	Neo-natal.
Natural forces	997	3	28	76
Natural forces under general anæsthesia	2	1	2	—
Natural forces after induction	149	—	12	8
Manual under general anæsthesia	4	—	2	—
Forceps	50	1	6	5
Forceps after induction	6	1	3	1
Version	4	—	2	2
Traction-extension to scalp	21	—	12	2
Traction-leg brought down	8	—	7	—
Cæsarean section	22	—	1	8
Craniotomy	7	1	5	—
Total	1,270	7	80	102

One maternal death (an undelivered case) not included in above.

Medicinal inductions	134
Medicinal inductions followed by bougies	19
Bougies alone	1
	154

Delivered by midwives	1,081
Delivered by medical officers	146
Midwife sought medical assistance in	407
Born before admission	43

Labour—		Per cent.
Normal	1,079	86
Abnormal	159	12·7
Multiple	16	1·3
Total	1,254	100

Birth—		
Full time	1,139	89·68
Premature	51	4·02
Still-born	80	6·3
Total	1,270	100

Infants—		
Breast fed	884	= 74 per cent.
,, supplemented	280	
Artificially fed	26	
Total	1,190	

Obstetrical Operations.*

Surgical induction	20
Internal version	8
Natural forces under general anæsthesia	2
Manual delivery under general anæsthesia	4
Application of forceps	60
Scalp traction	21
Leg brought down	8
Cæsarean section	23
Craniotomy	8
Manual removal of placenta	16
Episiotomy and repair	21
Repair of ruptured perineum	370
Repair of vaginal lacerations	42
Uterine plugging/glycerine injections	5
Miscellaneous	9

Operations on Infants.*

Plastic operation for hare lip	1
Craniotomy for depressed skull	1
Radical cure for exomphalos	1
Circumcision	9
Dilatation of prepuce	69
Tongue tie divided	28

Maternal Mortality.

Eight maternal deaths occurred, particulars of which are as follows :—

Whether admitted via ante-natal Clinic.	Mode of Delivery.	Maternal Complications.	Number of Cases.
No	Undelivered	Eclampsia	1
No	Natural forces	Broncho-pneumonia, puerperal pyrexia, strep. septicæmia	1
No	Forceps	Adherent placenta, post-partum hæmorrhage	1
No	Natural forces	Eclampsia, ante-partum hæmorrhage	1
No	Craniotomy	Malpresentation—shock	1
No	Forceps after induction	Puerperal septicæmia, ulceration perineum	1
No	Natural forces	Broncho-pneumonia	1
Yes	Natural forces under general anæsthesia	Eclampsia—disseminated sclerosis	1
			8

Mortality rate per 1,000 women admitted to the department = 6·24.

---

* Included in the table on page 107.

Pyrexia in the Puerperium.

Cases are classified as pyrexial where a rise of temperature occurs in the puerperium to 100·4° F. or over, and is sustained at the level for 24 hours, or recurs during that period.

The number of such cases which occurred during the year was 54. The following table furnishes information as to these cases :—

Mode of Delivery.	Causation.	No. of Cases.
Natural forces	Mastitis	8
	Pyelitis	6
	Bronchitis	2
	Influenza	1
	Cystitis	1
	Uterine infection	1
	Broncho-pneumonia	1
	Perineal sepsis	1
	Retained lochia	2
Natural forces after induction ...	? Cause	1
	Pyelocystitis	4
	Retained lochia	1
Leg brought down	Bronchitis	1
Forceps...	Pyelocystitis	2
Forceps after induction	Pyelitis	2
Cæsarean Section	Renal calculus pyonephrosis ...	1
Natural forces	Retained lochia	3
	Sapræmia	2
	Bronchitis	1
	Phlegmasia alba dolens	1
	Post partum hæmorrhage	1
	Cystitis	1
	Perineal sepsis	1
Natural forces after induction ...	Ulceration cervix	1
	Sapræmia	1
	Septic endometritis	1
Traction scalp	Septic endometritis	1
	Plegmasia alba dolens	1
	Retained lochia	1
Forceps...	Retained lochia	1
Forceps after induction	Septic perineum	1
Craniotomy	Cystitis	1

Pyrexial rate = 43 per 1,000 women delivered.

Infant Mortality.

Infants—		Per cent.
Born and survived	1,088	85·67
Born and died	102	8·03
Stillborn	80	6·3
Total births	1,270	100

Stillbirths.

Details of the 80 Stillbirths.

No. of Infants.	Delivered by	Causation.	Mother.		Infant.	
			Primipara.	Multipara.	Full term.	Premature.
27	Natural forces	Prematurity	3	3	—	6
		Pre-eclamptic toxæmia	—	1	1	—
		Eclampsia	1	—	—	1
		Placenta prævia	—	2	1	1
		Maternal nephritis	—	2	1	1
		Anencephaly	1	1	1	1
		Hydrocephalus	1	1	2	—
		Accidental hæmorrhage	1	—	—	1
		Prolapsed cord	—	3	—	3
		Not known	6	1	7	—
12	Natural forces after induction	Anencephaly	2	1	—	3
		Maternal nephritis	—	1	—	1
		Maternal toxæmia	1	1	—	2
		Prematurity	1	—	—	1
		Asphyxia	1	—	1	—
		Pyelitis	1	—	1	—
		Not known	3	—	3	—
2	Natural forces under G.A....	Delayed labour	1	—	1	—
		Prematurity	1	—	—	1
19	Traction—scalp	Asphyxia	—	1	1	—
		Placenta prævia	2	5	4	3
		Delayed labour	1	—	1	—
		Ante-partum hæmorrhage ...	1	2	—	3
	Traction—leg	Placenta prævia	—	6	3	3
		Maternal toxæmia	—	1	—	1
5	Forceps	Fœtal distress	—	1	1	—
		Delayed labour	2	—	2	—
		Prolapsed cord	1	—	—	1
		Not known	1	—	1	—
4	Forceps after induction ...	Inertia	1	—	1	—
		Birth injury	1	—	1	—
		Disproportion	1	—	1	—
		Maternal toxæmia	1	—	1	—
2	Manual under general anæsthesia	Locked twins	1	—	—	1
		Prematurity	1	—	—	1
2	Version	Placenta prævia	—	2	1	1
6	Craniotomy	Malpresentation	—	1	1	—
		Obstructed labour	1	3	4	—
		Mitral stenosis	1	—	1	—
1	Cæsarean section	Nephritis	—	1	—	1
80			40	40	43	37
			80		80	

Summary of Cause of Stillbirths.

		Per cent.
Maternal conditions	13	16·25
Complications of labour	39	48·75
Fœtal conditions	17	21·25
Not known	11	13·75
Total Stillbirths	80	100

Neo-Natal Deaths.

Details of the 102 neo-natal deaths (in hospital and within 4 weeks of birth).

No. of Infants.	Delivered by	Maternal Complications.	Cause of Death.	Age.
1	Natural forces	Fibrosis lung, pyelocystitis, malnutrition	Prematurity	1 day or less
1	,, ,,	Sapræmia	,,	,,
1	,, ,,	Toxæmia	,,	,,
2	,, ,,	Nil	,,	,,
1	,, ,,	Pyelitis	,,	,,
1	,, ,,	Twins	,,	2 days.
1	,, ,,	Toxæmia	,,	,,
1	,, ,,	Nil	,,	,,
1	,, ,,	Nil	,,	3 days.
1	,, ,,	Twins	,,	,,
1	,, ,,	Toxæmia	,,	5 days.
1	,, ,,	Nil	,,	,,
1	,, ,,	Twins	,,	6 days.
1	,, ,,	Placenta prævia	,,	7 days.
1	,, ,,	Acute mania	,,	,,
1	,, ,,	Nil	,,	8 days.
2	,, ,,	Nil	,,	9 days.
1	,, ,,	Albuminuria	,,	10 days.
1	,, ,,	Nil	,,	11 days.
1	,, ,,	Toxæmia	,,	12 days.
2	,, ,,	Nil	,,	13 days.
1	,, ,,	Nil	,,	14 days.
1	,, ,,	Albuminuria	,,	15 days.
2	,, ,,	Nil	,,	16 days.
1	,, ,,	Toxæmia	,,	18 days.
1	,, ,,	Nil	,,	,,
1	,, ,,	Pyelitis	,,	25 days.
2	,, ,,	Nil	Atelectasis	1 day or less.
1	,, ,,	Nil	,,	2 days.
1	,, ,,	Pneumonia, pyelitis	,,	5 days.
1	,, ,,	Nil	,,	6 days.
1	,, ,,	Albuminuria	,,	7 days.
1	,, ,,	Albuminuria	,,	8 days.
1	,, ,,	Nil	Marasmus	,,
1	,, ,,	Pyelitis	,,	,,
1	,, ,,	Nil	,,	9 days.
1	,, ,,	Nil	,,	10 days.
4	,, ,,	Nil	,,	11 days.
1	,, ,,	Nil	,,	12 days.
2	,, ,,	Nil	,,	13 days.
2	,, ,,	Nil	,,	14 days.
1	,, ,,	Flat pelvis	,,	15 days.
1	,, ,,	Nil	,,	,,
1	,, ,,	Nil	,,	17 days.
1	,, ,,	Nil	,,	18 days.
1	,, ,,	Toxæmia	,,	20 days.
1	,, ,,	Albuminuria, pulmonary tuberculosis	,,	21 days.
1	,, ,,	Nil	Melæna neonatorum	3 days.
1	,, ,,	Nil	Burns, asphyxia	17 days.
1	,, ,,	Nil	Debility	14 days.
1	,, ,,	Twins. Albuminuria	,,	10 days.
1	,, ,,	Nil	Broncho-pneumonia	2 days.
1	,, ,,	Bronchitis, septicæmia	,, ,,	3 days.
1	,, ,,	Pulmonary tuberculosis	,, ,,	12 days.
1	,, ,,	Twins	,, ,,	13 days.
1	,, ,,	Nil	,, ,,	,,
1	,, ,,	Hyperpiesis	,, ,,	15 days.
1	,, ,,	Twins	,, ,,	16 days.
1	,, ,,	Bronchitis	Gastro-enteritis	10 days.
1	,, ,,	Nil	,, ,,	11 days.
1	,, ,,	Nil	,, ,,	13 days.
1	,, ,,	Nil	,, ,,	15 days.
1	,, ,,	Nil	,, ,,	23 days.
1	,, ,,	Chorea	Congenital heart disease	4 days.
1	,, ,,	Nil	Intracranial hæmorrhage	9 days.
1	,, ,,	Nil	,, ,,	21 days.
1	,, ,,	Nil	Hæmothorax	3 days.
1	,, ,,	Mental deficiency	Nephritis	7 days.
1	,, ,,	Nil	Exomphalos	1 day.

No. of Infants.	Delivered by	Maternal Complications.	Cause of Death.	Age.
1	Natural forces after induction	Chronic nephritis	Prematurity	1 day.
1	,, ,,	Toxæmia	,,	10 days.
1	,, ,,	Albuminuria	,,	13 days.
1	,, ,,	Contracted pelvis	,,	15 days.
1	,, ,,	Toxæmia	,,	24 days.
1	,, ,,	Epilepsy	Marasmus	14 days.
1	,, ,,	Nil	Atelectasis	12 hours.
1	,, ,,	Cystitis, toxæmia	Gastro-enteritis	20 days.
1	,, ,,	Sapræmia	,, ,,	9 days.
1	Forceps	Nil	,, ,,	10 days.
1	,,	Delayed labour	Intra-cranial hæmorrhage	1 day.
1	,,	Nil	,, ,,	12 days.
1	,,	Delayed labour	,, ,,	14 days.
1	,,	Toxæmia	Marasmus	18 days.
1	Forceps after induction	Toxæmia	Prematurity	9 days.
1	,, ,,	Placenta prævia	,,	1 day.
1	Cæsarean	Obstructed labour	Atelectasis	16 hours.
1	,,	Placenta prævia	,,	1 day.
1	,,	Chronic nephritis	Toxæmia	,,
1	,,	Toxæmia	Prematurity	3 days.
1	,,	Toxæmia	,,	7 days.
1	,,	Rheumatoid arthritis	Marasmus	9 days.
1	,,	Mitralstenosis	,,	14 days.
102				

Summary of Causes of Death.

Prematurity	40
Marasmus	23
Atelectasis	10
Exomphalos	1
Maternal toxæmia	1
Broncho-pneumonia	7
Gastro-enteritis	9
Congenital heart disease	1
Intra-cranial hæmorrhage	4
Nephritis	1
Burns	1
Debility	2
Hæmothorax	1
Melæna neonatorum	1
Total neo-natal deaths	102

Analysis of Cases of Normal and Abnormal Pregnancy, Parturition and Puerperium Treated to a Conclusion in Maternity and other Wards during the Year.

	Discharged.	Died.	Total.
Pregnancy	5	—	5
Pregnancy and spurious labour pains	106	—	106
Toxæmia of pregnancy (admitted as such)	4	*1	5
Ectopic gestation	16	2	18
Abnormal condition of gravid uterus	4	—	4
Pregnancy—			
Placenta prævia (admitted as such)	2	—	2
Pregnancy and concomitant disease	54	3	57
Abortion—			
Threatened	19	—	19
Complete	7	—	7
Incomplete	227	2	229
Missed	5	—	5
With pelvic infection	4	1	5
With general peritonitis	1	—	1
Labour—			
Normal	926	—	926
Normal with toxæmia	109	—	109
Normal and concomitant disease	43	1	44
Abnormal	129	3	132
Abnormal and toxæmia of pregnancy	16	1	17
Abnormal and concomitant disease	8	2	10
Multiple	16	—	16
Puerperium—			
Normal (admitted as such)	2	—	2
Puerperium and concomitant disease	10	—	10
Retained products of conception (admitted as such)	14	—	14
Puerperal infections—			
General septicæmia (admitted as such)	—	3	3
Mental disorders associated with childbirth	2	—	2
Total	1,729	19	1,748

* Eclampsia—undelivered.

3. Department of Ophthalmology.

Refractions	410
Number of operations	36
Total number of out-patient attendances	2,821

In addition, a large number of cases were seen in consultation in the wards *re* treatment or diagnosis.

4. Anæsthetics.

During the year "gas and oxygen" has maintained its position as the predominant method of anæsthesia at the Hospital, the apparatus used being the McKesson Nargraf or Boyle.

Towards the end of the year trial was being made of the new intravenous anæsthetic Evipan. It is probable that its utility will survive the period of initial enthusiasm.

Analysis of Anæsthetics Administered.

		Total.
General.		
Chloroform, ether or mixture	48	
Ethyl chloride and ether	257	
Gas and oxygen	1,176	
Gas, oxygen and ether	1,138	
Evipan	3	
		2,622
Local.		
Freezing with ethyl chloride	3	
Infiltration	584	
		587
Spinal.		
Intrathecal injection		41
Intra-tracheal		55
Total		3,305

5. Ear, Nose and Throat Department.

The work here has maintained its previous average. It is not yet possible to keep all tonsillectomy cases in hospital overnight, owing to the great pressure on accommodation.

Analysis of Operations.

Removal of tonsils and adenoids in children	1,019
Removal of tonsils and adenoids, dissection	97
Submucous resection and dissection of tonsils	5
Submucous resection	27
Antrostomy	14
Mastoidectomy	16
Turbinectomy	3
Ethmoidectomy	4
Oesophagoscopy	6
Removal of aural polypi	3
Removal of nasal polypi	3
Frontal sinus operation	1
Rhinotomy	1
Removal of foreign body from nose	1
Plastic aural operation	1
Myringotomy	1
	1,202

6. Dental Department.

Number of patients treated	1,335
Number of general anæsthetics administered	718
Ante-natal cases treated	354

A number of cases of fracture or disease of the jaw were also treated in conjunction with the surgeons. The work has been steadily increasing, and the question of adding one more session a fortnight is under consideration.

7. Physio-Therapy Department.

I. *Electrical and Massage.*

	Number.	Treatments.
In-patients	376	7,935
Out-patients	1,029	37,357
Total	1,405	45,292

II. *Actino-Therapy.*

	Number.	Treatments.
In-patients	86	1,781
Out-patients	314	14,559
Total	400	15,340
Grand Totals	1,805	60,632

8. Dispensary.

The dispensary staff consists of five qualified dispensers and a dispensary porter. The amount of work is very large and has rather outgrown the accommodation. It includes a very busy out-patient department and a certain amount of work from the associated institutions. The duties also comprise the ordering of instruments and the ordering and issuing of dressings.

Prescriptions dispensed during the year :—

In-patients	114,578
Out-patients	15,086

9. Pathology.

The work of the department has increased about 30 per cent. in the past year, and it will be necessary to review the arrangements for the accommodation and staff of the pathological department in the near future.

In the following tables are set out particulars of the various pathological, bacteriological and bio-chemical investigations carried out at the laboratory on behalf of the County Council's several general hospitals.

Classification of Examinations made in the Pathological Department during 1933.

Specimens from	Pathological Examinations.																	Bacteriological Examinations.										
	Blood.										Cerebro-spinal fluid.																	
	Bleeding time.	Coagulation time.	Full count.	White count.	Platelet count.	Widal reaction.	Other agglutination tests.	Fragility of red cells.	Blood grouping.	Wassermann reaction.*	General examination.	Lange's curve.	Wassermann reaction.*	Urine, general.	Fæces, general.	Fæces, parastic infections.	Fluids, exudates, &c.	Blood cultures.	Cerebro-spinal fluid.	Urine.	Fæces.	Pus.	Sputum.	Swabbings.	Films for gonococci.	Hairs for ringworm.	Vaccines.	Animal inoculations.*
County Hospital—																												
North Middlesex	6	12	347	77	10	43	31	4	80	407	156	11	47	1,168	20	5	161	36	106	955	52	207	669	621	181	19	11	10
West Middlesex	—	—	142	5	—	15	30	—	—	1,152	3	—	—	389	27	3	80	19	1	371	36	151	6	11	178	12	—	26
Central Middlesex	—	—	136	5	6	—	—	—	—	2	12	7	10	47	6	—	34	—	3	44	13	10	1	8	22	—	1	14
Hillingdon	—	—	—	—	—	5	5	—	—	182	45	9	16	28	4	—	21	—	21	29	25	20	—	30	2	—	4	26
Redhill	—	—	1	—	—	13	10	—	—	73	25	1	11	1	2	—	25	12	18	7	13	16	—	63	7	—	—	3
Total	6	12	626	87	16	76	76	4	80	1,816	241	28	84	1,633	59	8	321	67	149	1,406	139	404	676	733	390	31	16	79

* Wassermann reactions and animal inoculation tests are carried out by Mr. Benians in the pathological laboratory at the Prince of Wales's Hospital, Tottenham, by arrangement.

Specimens from :—	Bio-Chemical Examinations.													Histological preparations.	Other tests.
	Blood.				Cerebro-spinal fluid.			Urine.			Fæces.		Test meals, fractional.		
	Sugar estimation.	Urea estimation.	Van-den-Berghs.	Calcium estimations.	Protein, quantitative.	Sugar content.	Chlorides, quantitative	Sugar estimation.	Urea concentration.	Ketosis.	Occult blood.	Fats, quantitative.			
County Hospital— North Middlesex	62	164	11	3	83	58	90	156	142	9	167	1	18	308	18
West Middlesex	42	168	12	—	3	1	2	1	371	1	22	7	2	1	5
Central Middlesex	152	148	3	1	9	5	3	1	25	—	169	4	2	3	7
Hillingdon	46	1	2	—	27	21	31	3	—	—	—	2	1	—	4
Redhill	—	—	—	1	16	8	13	—	—	—	—	3	—	—	1
Total	302	481	28	5	138	93	139	161	538	10	358	17	23	312	38

10. Department of Radiology.

During the year much work has been done in an endeavour to standardise technique in X-ray preparation, exposure, and development. For example, the method of preparation of cases for opaque meals, examination of urinary tracts, and cholecystographies, has been made uniform. In the matter of exposure technique, optimum settings have been arrived at and made standard for average cases. The full possibilities of the Rotalix tube have been brought out in the radiography of the chest. All radiograms of the chest are now done at a distance of six feet and with a very rapid exposure.

In order to secure adequate preparation and the essential investigation of screening in every case, opaque meals have been concentrated into two sessions a week—one by each radiologist.

As the logical result of the uniformity of preparation and exposure, a standardised " time-and-temperature " development is being practised in all cases. The consequence of thus replacing haphazard " judgment " by methods of precision is not only vastly better results, but what is also of great (though secondary) importance, the elimination of waste.

X-ray Investigations.

Number of In-patients	2,917
Number of Out-patients	1,495
Total	4,412
Total number of *examinations*	6,218

The following are important groups where total figures are a valuable index of the work of the department :—

" Standard chests "	835
Bronchiolography	5
Opaque meals	491
Opaque enemas	82
Cholecystography	113
Pyelography—	
(*a*) Intravenous	29
(*b*) Ascending	24

Cholecystographies are now done normally by the oral method—with intravenous repeats in doubtful cases. It is interesting to note how, as a result of improved technique, intravenous is gradually displacing ascending pyelography—giving, as it does, not only anatomical, but also most valuable physiological, information.

X-ray Therapy.

The plant has been used during the year during the attendance of the visiting Radiologists, *i.e.*, five sessions a week. It is planned to use it to capacity in the New Year when the whole-time Radium Officer is appointed.

The majority of the cases referred for treatment are so advanced that little but alleviation is to be hoped for. The following is a summary of the cases treated :—

Deep Therapy.	Patients.	Treatments.
Carcinoma of uterus, after radium	36	401
,, uterus, no radium	11	132
,, the ovary, after radium	1	8
,, the ovary, after operation	3	36
Papilliferous ovarian cyst	1	14
Carcinoma of vulva	2	17
,, breast, after operation	31	313
,, breast, after radium	1	15
,, breast, after both	1	3
,, breast, no operation	5	58

	Patients.	Treatments.
Carcinoma of lip, after radium	1	7
,, lip, after operation	1	9
,, lip, no operation	1	4
,, tongue	3	11
,, glands of neck	3	11
,, tonsil, after radium	1	12
,, pharynx	2	10
Carcinoma, post criccoid	3	19
Carcinoma of larynx	4	57
,, œsophagus	1	7
,, stomach	3	10
,, colon, after operation	7	78
,, colon, no operation	2	10
,, rectum, after operation	1	8
,, cæcum	1	21
,, penis, after radium	2	26
,, penis, after operation	1	3
Carcinomatous mass, L.I.F.	4	36
Teratoma testis	2	14
Carcinoma of liver	1	4
,, lung	3	21
,, antrum	1	18
,, mandible	1	2
,, inguinal glands	1	9
Multiple carcinoma	1	10
Sarcoma, ovary, after radium	1	12
,, ovary, after operation	1	12
,, recto-vaginal	1	4
Sarcoma of ilium	1	7
,, chest wall, after radium	1	7
,, kidney, after operation	1	7
,, fibula, after operation	1	3
,, sterno-clavical	1	1
Mixed parotid tumour	1	9
Lymphadenoma	3	75
Goitre	1	4
Goitre, exophthalmic	4	16
Leukæmia, myelogenous	2	21
,, lymphatic	1	13
Lymphatic block	1	2
Endothelioma maxilla	1	3
Menorrhagia	3	21
Actinomycosis	1	2
Secondary carcinoma in spine	1	2
Superficial Therapy.		
Eczema	5	10
Dermatitis	3	12
Keloid	1	2
Nævus	1	6
Ringworm	5	20
Alopecia (by Grenz Ray)	1	3
Dermatitis (by Grenz Ray)	1	2
Varicose ulcer (by Grenz Ray)	1	8
Total	188	1,698

11. Radium Department.

The services of a visiting radium therapist from the Middlesex Hospital have been continued during the year and it has been decided to appoint a full-time radium officer in addition, the visiting officer attending on two sessions a week.

As a result of this re-staffing it has been possible to bring the whole of the radiotherapy of malignant disease under one control, *i.e.*, the deep X-ray therapy will henceforth be under the control of the radium therapy staff. Thus it is hoped that both the radium and the deep-therapy plant will be used to capacity throughout the week.

Number of new cases seen during 1933	86
Total number of treatments during 1933	213

In the following table endeavour is made to indicate in statistical form the after-history of all patients who have been treated at the Hospital by radium since the year 1930.

Return showing the condition at the end of 1933, *of all patients treated by radium since* 1930.

Year commencing treatment.	1930.						1931.					1932.				1933.		
Condition treated.	Total cases treated	Alive.	Died within 1 year.	Died within 2 years.	Died within 3 years.	Died within 4 years.	Total cases treated	Alive.	Died within 1 year.	Died within 2 years.	Died within 3 years.	Total cases treated	Alive.	Died within 1 year.	Died within 2 years.	Total cases treated	Alive.	Died within 1 year.
MALIGNANT.																		
I. *Carcinoma : Gynæcological.*																		
Cervix Uteri—Stage I	3	2	—	—	1	—	1	—	—	1	—	1	1	—	—	6	6	—
,, ,, ,, II	2	1	1	—	—	—	6	1	—	1	4	4	3	—	1	6	5	1
,, ,, ,, III	5	2	1	2	—	—	2	—	—	2	—	5	2	—	3	8	6	2
,, ,, ,, IV	7	2	3	2	—	—	6	—	6	—	—	3	—	—	3	6	4	2
Corpus Uteri	2(1)	1	—	—	—	—	—	—	—	—	—	1	1	—	—	—	—	—
Ovary	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	2	2	—
Vagina	1	—	—	1	—	—	2	—	—	1	1	—	—	—	—	—	—	—
Vulva	—	—	—	—	—	—	1	1	—	—	—	2	—	1	1	1	1	—
II. *Carcinoma : Tongue and Mouth.*																		
Tongue	4	1	1	1	1	—	—	—	—	—	—	—	—	—	—	6	5	1
Floor of mouth	—	—	—	—	—	—	—	—	—	—	—	1	—	1	—	1	1	—
Palate	—	—	—	—	—	—	1	—	1	—	—	—	—	—	—	—	—	—
Tonsil	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1	—	1
Fauces	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1	1	—
Pharynx	1	1	—	—	—	—	1	—	1	—	—	—	—	—	—	2	—	2
Oesophagus	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1	—	1
Glands of neck (Scndry. to pharynx) ..	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1	1	—
III. *Carcinoma : Breast, &c.*																		
Breast	3	—	2	1	—	—	1	—	1	—	—	1	1	—	—	5	2	3
IV. *Carcinoma : Rectum.*																		
Anus—Squamous	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1	1	—

V. *Carcinoma: Larynx, &c.*																		
Larynx	—	—	—	—	—	—	—	—	—	—	—	1	1	—	—	1	—	1
Antrum	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1	1	—
VI. *General.*																		
Skin—Squamous	6	3	—	1	2	—	7(2)	4	1	—	—	6	5	—	1	6	4	2
,, Basal-celled	9	8	—	1	—	—	12	11	—	1	—	3	3	—	—	8	7	1*
Sarcoma	—	—	—	—	—	—	2	2	—	—	—	2	1	—	1	2	1	1
Endothelioma	—	—	—	—	—	—	1	1	—	—	—	—	—	—	—	2	2	—
Mixed Parotid	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1	—	1
Penis	—	—	—	—	—	—	—	—	—	—	—	2	2	—	—	—	—	—
Bladder	1	—	1	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total Malignant	44(1)	21	9	9	4	—	43(2)	20	10	6	5	32	20	2	10	69	50	19
NON-MALIGNANT.																		
Nævi	6(2)	4	—	—	—	—	6	5	1	—	—	15(1)	14	—	—	11	11	—
Hæmangioma	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1	1	—
Granuloma	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1	1	—
Keloid	—	—	—	—	—	—	—	—	—	—	—	1	1	—	—	2	2	—
Endometritis	1	1	—	—	—	—	—	—	—	—	—	1	1	—	—	1	1	—
Menorrhagia	—	—	—	—	—	—	1	1	—	—	—	—	—	—	—	1	1	—
Fibrosis Uteri	—	—	—	—	—	—	—	—	—	—	—	4	4	—	—	1	1	—
Adenomatous uterine polypus	—	—	—	—	—	—	1	1	—	—	—	—	—	—	—	—	—	—
Chronic inflammatory ulcer	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1	1	—
Wart	—	—	—	—	—	—	1	1	—	—	—	—	—	—	—	—	—	—
Chronic tonsillitis	—	—	—	—	—	—	1	1	—	—	—	—	—	—	—	—	—	—
Unhealed burn arm	—	—	—	—	—	—	1	1	—	—	—	—	—	—	—	—	—	—
Lupus	1	—	—	—	—	1	1	1	—	—	—	—	—	—	—	—	—	—
Total Non-Malignant	8(2)	5	—	—	—	1	12	11	1	—	—	21(1)	20	—	—	19	19	—
Grand Totals	52(3)	26	9	9	4	1	55(2)	31	11	6	5	53(1)	40	2	10	88	69	19

* Cause of death—Uræmia, chronic interstitial nephritis.
Figures in brackets relate to cases "lost sight of."

APPENDIX II.

ANNUAL REPORT ON THE WORK OF REDHILL COUNTY HOSPITAL DURING 1933, PREPARED BY THE MEDICAL SUPERINTENDENT.

Staff.

WHOLE-TIME MEDICAL STAFF.

Medical Superintendent—

J. Nissen Deacon, *M.C.*, M.B., B.S.

Deputy Medical Superintendent—

W. Arklay Steel, M.D., Ch.B., M.R.C.P.

Assistant Medical Officers—

E. B. Brooke, M.A., M.B., B.Chir.(Cantab.), M.R.C.P., D.P.H.
J. H. Attwood, M.B., B.S., M.R.C.S., L.R.C.P.
D. B. Craig, L.R.C.P., F.R.C.S.(Edin.).

VISITING MEDICAL STAFF.

Surgeon—

R. Trevor Jones, M.B., B.S., B.Sc., F.R.C.S.(Eng.).

Radiologist—

G. Simon, M.B., B.Chir.(Cantab.), D.M.R.E.(Cantab.).

Dental Surgeon—

J. A. Hudson, L.D.S., R.C.S.(Eng.).

NURSING—(88).

Matron—Miss E. R. Wheeldon.

Administrative Sisters	3	Nurses and Probationers (44)	70
Departmental Sisters	5	Massage Sister	1
Ward Sisters	6	Masseuses	2

OTHER STAFF.

(*Non-Resident.*)

Chaplain	Rev. C. E. de R. Copinger.
Steward	Mr. J. Fielding, A.R.S.I.
Pharmacist	Miss W. N. Knight, M.P.S.
Chief Assistant Dispenser and Biochemist	Miss E. Johnson, Ph.C., M.P.S.
Radiographer	Miss B. V. Poole, M.S.R.
Lady Almoner	Mrs. F. G. Owen.

Beds.

The existing block of buildings was planned to contain 175 beds and cots and 18 maternity cradles. In each of the four years, 1928 to 1931, one or more small additions to the complement were made. Since the latter part of 1931 the complement at 215 has remained unchanged. Until additional accommodation is provided no increase in this figure can be made with safety. The beds, cots and cradles are allotted as follows :—

Male—medical	32	
,, —surgical	30	
,, —ear, nose and throat	7	
	—	69
Female—medical	28	
,, —surgical	28	
,, —ear, nose and throat	8	
	—	64
Maternity beds	25	
,, cradles	25	
	—	50
Children under 7—General	24	
,, —Ear, nose and throat	6	
	—	30
Sick nurses		2
Total		215

Nurses Training School.

The hospital was opened in December, 1927. In April, 1929, it was approved by the General Nursing Council as a complete training school for nurses. In May, 1931, the Central Midwives Board approved the hospital as a training school for midwives and the sister-in-charge of the maternity department as a recognised teacher of midwifery.

After a trial period of three months, probationer nurses proceed to a three-years' course of training. On completion of the latter they are required to sit for the County Nurses' examination, and for the Final State examination for admission to the general part of the State Register of Nurses. To the nurse who most distinguishes herself in the County examination, a County Gold Medal is awarded and County Silver Medals to the nurses who are second and third in order of merit. To those nurses who satisfy the examiners County Certificates of training are granted. Based on the results of the County examination, nurses who so desire are accepted for training for the certificate in midwifery granted by the Central Midwives Board.

ACADEMIC SUCCESSES DURING THE YEAR.

	Passed.	Failed.
County Nurses Examination	11	2
State Examination—Final	12	3
Certificate of Central Midwives Board	9	2

Social Service Department.

The Lady Almoner is vested by the County Council with the powers of a relieving officer. The investigations made in this connection enable her to render advice and arrange help, apart from hospital treatment, for those who need it. Her presence here makes it unnecessary to refer to area relieving officers, or to admit on emergency orders, many of those who apply direct to the hospital for in-patient treatment. Of 1,896 patients admitted on orders issued by the three relieving officers and the Lady Almoner, 1,353 received their orders from the latter.

In connection with women seeking admission to the maternity wards her services are of particular value. Such women, given that they are not in labour, are referred direct to her. In 1933 the number of new cases so referred and interviewed was 755. Women who, for one reason or another, cannot be accepted for admission are either advised how to proceed or have other arrangements made for them.

From those accepted the Almoner collects the fees at which they have been assessed. Usually these are paid in instalments and in advance, collection being made on the occasion of the expectant mother's visits to the ante-natal clinic. Many women take advantage of this arrangement and pay the whole fee before confinement.

The provisional assessment and collection of payments from persons attending the various out-patient departments is another duty performed by the Almoner. Out-patient attendances in 1933 numbered 18,716.

As soon as possible after admission all patients injured in street accidents are seen by her in the wards. They are warned of the activities of agents representing firms of " touting " solicitors and, when necessary, put in touch with firms of good repute. Thus the interests of such patients are safeguarded and the possibility of recovering some, if not all of the cost of each is much increased. This arrangement is eminently satisfactory.

Hospital Library Service.

In November, Mrs. Hodgson, appointed by the British Red Cross Society as chief honorary librarian, retired. Mrs. Lumsden, her assistant, was appointed in her place and Mrs. Graham became assistant honorary librarian. Each librarian makes a weekly visit. Their visits and the service are much appreciated.

Work of the Hospital.

As in previous years this is set out in the form of statistical tables and analyses which deal in detail with the work of the hospital during the year.

The number treated to a conclusion in 1933 is a record for the hospital. For the third year in succession, 40 per cent. of those treated were children under 16.

The average daily number of beds unavailable by reason of repairs, infection and occupation by sick staff is 5·4, an increase of 0·1.

The average daily number of occupied beds (192) is increased by 2. The average daily percentage of available beds occupied has increased and stands high at 91·7. When considering this last number one must bear in mind the many specific uses to which our small total number of beds is put. Beds are allotted to male and female medical and surgical cases, maternity cases, male and female ear, nose and throat cases and to cases of sick children, *i.e.*, to 8 groups, each in a separate ward.

The average daily percentage of patients on the dangerously ill list is 12·2. This is a very high percentage and the figure shows a marked increase.

The average length of stay per patient is 18·6 days, a decrease of 1·2 days. For six years in succession the death-rate has fallen, and now stands at 5·7 per cent.

SPECIAL DEPARTMENTS.

The number of special departments remains unchanged. To the work of a few, special attention is drawn here below.

Operations and Anæsthetics.

The number of major operations is 952, an increase of 86. There were 1,668 operations performed in the theatres. The operative mortality rates of major and minor operations at 3·3 per cent and 0·1 per cent show decreases of 1·9 and 0·2 respectively. Of 2,071 general anæsthetics administered, 378 were given for dental purposes.

Maternity.

In 1932 the number of confinements was 520. As this number was considered to be excessive, having in mind the extent of the maternity accommodation of the hospital, efforts were made, during the year under review, to curtail admissions to the department. Accordingly, arrangements were made for certain multiparæ with normal cyesis to be delivered in their homes or elsewhere. For this reason the number of women delivered in the department in 1933 fell to 474 and the annual increase in the number of confinements seen in each of the five preceding years, did not occur.

The percentage of primiparæ delivered has risen to 63. The proportion of women who had abnormal conditions of pregnancy and/or labour has increased greatly and at 27·4 per cent. compares with 12·8 per cent. in 1932.

The maternal morbidity and maternal mortality rates per 1,000 women delivered, or who died undelivered, have fallen to 58·9 and 6·3 respectively.

The average length of the lying-in period is 14·3 days, an increase of one day.

The stillbirth rate has fallen to 3·9 per 100 births. The neo-natal death rate (deaths under 4 weeks) at 4·1 per 100 infants born alive compares with 3·4 per cent. in 1932.

Ear, Nose and Throat.

The work of this department continues to increase. 603 patients (16 per cent. of the total) were primarily treated for diseases and conditions of the ear, nose and throat. With one exception these conditions constitute the largest group of diseases treated.

Diseases of the ear appear to be prevalent in children of the Burnt Oak and Hendon districts. Large as is the accommodation for ear, nose and throat cases, there were times when it was insufficient to meet the demands made on it. During the year some 12 to 15 cases of acute mastoiditis were referred to other hospitals. A waiting list of chronic cases is kept and on one occasion there were approximately 100 names thereon. It remains large.

Owing to the occupation of beds by acute cases the number admitted for removal of tonsils had to be curtailed. Of the 465 operations of this nature, 83 were performed on patients admitted to the general wards for the treatment of other conditions.

In April, 1929, arrangements were made with the Hendon Education Committee for the operation for removal of tonsils and adenoids to be performed at this hospital on a certain proportion of children considered by the school medical officers to be in need of such. During the past year 109 children were admitted under this arrangement. Children admitted at 5 p.m. on Monday for operation on Tuesday are discharged at 10 a.m. on Wednesday and those admitted at 5 p.m. on Wednesday for operation on Thursday are discharged at 10 a.m. on Friday.

Ear, nose and throat operations number 718.

Out-patients attend daily (Sundays included) and on Tuesday and Friday afternoon an out-patient clinic is held by the Aural Surgeon. The numbers of out-patients and attendances have doubled.

In connection with this, as with other special departments in this hospital, the knowledge that it exists and is available results in an increasing number of cases being referred to it for treatment.

Massage, Electro-therapeutic and Light.

There has been an increased demand for treatments in these departments. Massage treatments at 8,441 and electrical treatments at 2,884 compare with 5,196 and 1,709 treatments respectively in 1932. Early in the year additional medical gymnastic and other massage equipment was installed.

Out-Patients.

The department has a full-time nursing staff of a sister, staff nurse and three assistant nurses for ambulance, receiving and casualty duties.

In the various out-patient departments are seen patients discharged from the wards, casualties, persons sent for consultation, special investigation and/or treatment, and women attending the ante-natal clinics. During the year 4,673 out-patients were treated. They made 18,716 attendances. Details of the out-patient work appear later in this report.

Co-operation with General Medical Practitioners.

During the year 1,700 letters were sent by the Medical Superintendent to medical practitioners in the discharge of their patients. These letters contained particulars of any investigations made and operations performed and the treatment given and advised.

The letters of thanks received from practitioners show how much this service is appreciated.

STATISTICAL TABLES AND ANALYSES.

Remaining in hospital, 1st January, 1933	184	
Admitted	3,323	
Born in hospital	465	
		3,972
Discharged	3,567	
Died	215	
Patients treated to a conclusion during the year		3,782
Remaining in hospital on 31st December, 1933		190

Classification of Patients treated to a Conclusion.

Male infants under 3	416	
Boys, 3–16	426	
Men	811	
		1,653
Female infants under 3	329	
Girls, 3–16	352	
Women	1,448	
		2,129
Total		3,782

Children under 16 constituted 40 per cent. of all patients treated.

The number of *patients treated to a conclusion* during the year is the subject of the tables which follow.

I—Table showing how the 3,782 Patients treated to a conclusion during the Year were Originally Admitted.

1. By order of Local Public Assistance officer (maternity cases)	49
2. By Relieving Officer or Lady Almoner's order	1,896
By Medical Superintendent :—	
3. Births	463
4. Police cases (other than accidents)	28
5. Accidents	329
6. Maternity cases (emergency)	41
7. Other urgent cases	821
8. Transfer from institution or home—M.C.C.	40
9. Transfer from hospital—M.C.C.	2
10. Transfer from hospital or institution—other authority	2
11. By agreement with another authority	111
Total	3,782

Of the above patients, 48·6 per cent. were admitted by the Medical Superintendent.

Admitted twice during the year for the same disability	85
Admitted thrice during the year for the same disability	11

II.—TABLE SHOWING THE PARISHES TO WHICH THE 3,782 PATIENTS TREATED BELONGED.

Parish of Hendon	1,904
,, Kingsbury	451
,, Little Stanmore	227
,, Pinner	56
,, Great Stanmore	39
,, Harrow-on-the-Hill	222
,, Harrow Weald	124
,, Wembley	282
,, Wealdstone	415
Other districts of Middlesex	62
Total	3,782

Note.—The allotment of an accident case to any one of the preceding parishes is governed by the following rules :—

(1) A person admitted, who is normally resident within the County, becomes a case for the parish of residence, irrespective of the district in which the accident occurred.

(2) A person admitted, not being normally resident within the County, becomes a case for the parish in which the accident actually occurred.

(3) A person admitted from and normally resident outside the County area becomes a case for the parish of Hendon, being the parish in which the Redhill County Hospital is situate.

III.—TABLE SHOWING THE RESULTS OF TREATMENT OR THE TERMINATION, TOGETHER WITH ANALYSES OF DEATHS IN AGE AND OTHER GROUPS.

Cured	2,771	= 73·3 per cent.
Relieved	737	= 19·5 ,,
Unrelieved	59	= 1·5 ,,
Died	215	= 5·7 ,,

Analysis of Deaths in Age Groups.

Ages.	Male.	Female.	Totals.
Under 1	25	16	41
1–2	4	4	8
2–5	4	4	8
5–15	9	1	10
15–25	5	5	10
25–35	20	16	36
35–45	9	13	22
45–55	17	7	24
55–65	12	11	23
65–75	13	6	19
Over 75	9	5	14
Totals	127	88	215

	Treated.	Percentage of total.	Died.	Case Mortality per cent.
Medical cases	810	21	107	13·2
Surgical and obstetric cases	2,972	79	108	3·6

		Percentage of total.
*Deaths within 24 hours of admission	66	31
Deaths 24 to 48 hours after admission	17	8
Deaths 48 to 72 hours after admission	15	7
All other deaths	117	54
Total deaths	215	100

*Injuries	18
Terminal stage—acute disease	24
Terminal stage—chronic disease	18
Neo-natal deaths	6
Total deaths within 24 hours	66

For the causes of death, *see* Table VII.

IV.—TABLE SHOWING THE BEHAVIOUR OF PATIENTS AND THEIR MANNER OF DISCHARGE.

Patients whose behaviour was normal	3,736
Patients whose behaviour was abnormal	46*
Total	3,782

*Troublesome	10
Mentally deranged	16
Suicidal	20
	46

Discharge.

In the normal manner or by death	3,681
At own request, with Medical Superintendent's approval ..	56
At own request, against Medical Superintendent's advice ..	45
Ejected for misconduct	—
Total	3,782

V.—TABLE SHOWING WHITHER THE 3,782 PATIENTS WERE DISCHARGED.

1. To own, relative's or friend's home	2,570
2. To institution or children's home—M.C.C.	179
3. To out-patient department	650
4. To convalescent home	130
5. To general hospital—M.C.C.	19
6. To hospital or institution—other authority	2
7. To acute infectious disease hospital	13
8. To mental hospital	—
9. To sanatorium	2
10. To voluntary hospital	2
11. Died	215
Total	3,782

VI.—AVERAGES FOR THE YEAR.

Beds—average daily complement	215
Beds—average daily number available	209·6
Beds—average daily number occupied	192
Average daily percentage of available beds occupied	91·7
Patients per occupied bed—average number per annum ..	19·7
Nursing staff—average daily strength	81·9†
Occupied beds per nurse—average number	2·3†
Admissions—average daily number	10·4
Dangerously ill—average daily percentage	12·2
Stay—average length in days per patient	18·6

Maximum number of beds occupied = 213 on 2nd August, 1933.
Minimum number of beds occupied = 163 on 15th October, 1933.

† Includes Matron, 13 sisters and nurses not employed in the wards and 3 masseuses.

VII.—CLASSIFICATION OF THE DISEASES AND CONDITIONS FOR WHICH THE 3,782 DISCHARGED PATIENTS WERE PRIMARILY TREATED DURING 1933.

Classified according to the Nomenclature of Diseases (Sixth Edition, 1931), drawn up by the Royal College of Physicians of London.

Disease or Condition.	Medical.			Surgical and Obstetric.			Totals.
	Relieved.	Unrelieved.	Died.	Relieved.	Unrelieved.	Died.	
Healthy—							
No abnormality detected	5	—	—	—	—	—	5
Breast-fed infants with mother	23	—	—	—	—	—	23
Births	—	—	—	446	—	19	465
Diseases due to infection—							
Erysipelas	16	—	2	—	—	—	18
Gonorrhœa	3	—	—	—	—	—	3
Influenza and its complications	59	—	15	—	—	—	74
Measles—morbilli and rubella	—	1	—	—	—	—	1
Mumps, pertussis, varicella	9	—	1	—	—	—	10
Rheumatism—acute and sub-acute	30	—	—	—	—	—	30
Rheumatic chorea	2	—	—	—	—	—	2
Syphilis—primary and secondary	1	—	—	—	—	—	1
Tuberculosis—pulmonary	13	8	6	—	—	—	27
Tuberculosis—non-pulmonary	2	1	7	14	1	1	26
Miscellaneous notifiable	8	4	1	—	—	—	13
Miscellaneous non-notifiable	2	—	2	—	—	—	4
Infestations by metazoan parasites	8	—	—	—	—	—	8
Diseases of the nervous system—							
Of vascular origin	3	2	2	—	—	—	7
Mental diseases	13	2	—	—	—	—	15
Miscellaneous	18	4	2	—	—	—	24
Diseases of the eye	—	—	—	4	—	—	4
Diseases of the ear	—	—	—	148	—	3	151
Diseases of the nose and sinuses	—	—	—	35	—	1	36
Diseases of the circulatory system—							
Rheumatic carditis—chronic	13	1	6	—	—	—	20
Myocardial degeneration, etc.	5	—	5	—	—	—	10
Arteriosclerosis	3	3	4	—	—	—	10
Of the veins	—	—	—	6	—	—	6
Miscellaneous	4	—	9	—	—	—	13
Diseases of the blood and spleen	7	—	1	—	—	—	8
Diseases of the lymphatic system	—	—	—	43	—	—	43
Diseases of the endocrine glands	6	—	1	—	—	—	7
Diseases of the breast	—	—	—	8	—	—	8
Diseases of the respiratory system—							
Laryngitis	1	—	—	—	—	—	1
Bronchitis—acute	14	—	—	—	—	—	14
Bronchitis—chronic	12	1	—	—	—	—	13
Pneumonia—primary	39	—	11	—	—	—	50
Broncho-pneumonia	20	—	7	—	—	—	27
Pleurisy	8	—	1	—	—	—	9
Miscellaneous	16	—	—	—	—	—	16
Diseases of the teeth and gums	—	—	—	23	—	1	24
Diseases of the digestive system—							
Tonsillitis	—	—	—	92	—	—	92
Enlarged tonsils and/or adenoids	—	—	—	324	—	—	324
Peptic ulcers	22	—	2	12	—	7	43
Dyspepsia of infants	18	—	8	—	—	—	26

Disease or Condition.	Medical.			Surgical and Obstetric.			Totals.
	Relieved.	Unrelieved.	Died.	Relieved.	Unrelieved.	Died.	
Diseases of the digestive system—*contd.*							
Of stomach and duodenum—other ..	9	—	—	2	—	—	11
Appendicitis	—	—	—	159	—	5	164
Visceroptosis, constipation, stasis ..	62	—	—	—	—	—	62
Herniæ	—	—	—	32	1	3	36
Of intestine, rectum, anus—other ..	18	1	1	22	—	1	43
Of liver and gall-bladder	14	—	2	7	—	1	24
Of peritoneum	—	—	—	8	—	5	13
Miscellaneous	4	—	1	—	—	—	5
Diseases due to disorders of nutrition or of metabolism	15	—	4	—	—	—	19
Diseases of the generative system—							
Of the male organs	—	—	—	59	1	3	63
Of the female organs	—	—	—	58	1	—	59
Pregnancy, parturition and puerperium—							
Normal and abnormal conditions ..	—	—	—	664	—	7	671
†Diseases of the organs of locomotion—							
Fibrositis group	16	—	—	—	—	—	16
Arthritis deformans	12	2	—	—	—	—	14
Osteomyelitis—acute and chronic ..	—	—	—	27	1	1	29
Miscellaneous	—	—	—	20	—	—	20
Diseases of the areolar tissue	—	—	—	38	—	3	41
Diseases of the skin	34	—	—	—	—	—	34
Diseases of the urinary organs—							
Nephritis	19	3	6	—	—	—	28
Pyelitis	39	—	—	—	—	—	39
Miscellaneous	9	—	—	21	—	—	30
Injuries—							
Superficial	—	—	—	32	—	—	32
Deep and foreign bodies	—	—	—	23	—	3	26
*Shock or other general injury	—	—	—	36	—	—	36
*Cerebral concussion	—	—	—	60	—	—	60
*Cerebral contusion	—	—	—	11	—	—	11
Burns and scalds	—	—	—	29	—	3	32
Wounds—clean and septic	—	—	—	59	—	1	60
Septic conditions of the hand	—	—	—	12	—	—	12
Fractures and dislocations	—	—	—	234	3	19	256
Miscellaneous	—	—	—	3	—	2	5
‡Tumours, benign—							
Of the generative system	—	—	—	14	—	1	15
Of other organs and structures.. ..	—	—	—	2	1	—	3
Tumours, malignant—							
Of the digestive system	—	—	—	8	7	6	21
Of the generative system	—	—	—	1	4	2	7
Of the urinary organs	—	—	—	2	—	—	2
Of other organs and structures ..	—	—	—	2	5	2	9
Tumours—intra-cranial	—	—	—	—	—	2	2
Cysts	—	—	—	5	—	—	5
Malformations—congenital	—	—	—	6	1	3	10
Poisonings	—	—	—	18	—	3	21
For special investigation/treatment ..	16	—	—	9	—	—	25
Totals	670	33	107	2,838	26	108	3,782

† 1918 group-title retained. That for 1931 is: Diseases of bones, joints, muscles, fasciæ and bursæ.

* The majority of cases had additional and superficial injuries.

‡ 1918 classification of tumours retained.

Diseases and Conditions treated to a Conclusion.

(Grouped in order of frequency.)

	Treated.	Died.
Pregnancy, parturition and puerperium ..	671	7
Diseases of the ear, nose and throat ..	603	4
Injuries—general and local	530	28
Births	465	19
Diseases of digestive system	427	36
Diseases due to infection	209	35
Diseases of respiratory system	130	19
Diseases of generative organs	122	3
Diseases of urinary organs	97	6
Diseases of organs of locomotion	79	1
Diseases of areolar tissue and skin	75	3
Diseases of circulatory system	59	24
Tumours	59	13
Diseases of remaining groups	256	17
Total treated ..	3,782 of whom	215 died.

The first four groups of cases together constitute 60 per cent. of the total number treated to a conclusion. The first and fourth groups are dealt with in the Maternity section of this report.

Otitis media (42 cases), mastoiditis (94 cases), nasal obstruction and sinusitis (36 cases), tonsillitis and enlarged tonsils and adenoids are the ear, nose and throat diseases and conditions for which relief was most frequently sought and given.

Of the injuries, 254 were sustained in street accidents. The 1933 and 1932 figures are identical. Fractures and dislocations, which together constitute approximately half the number of injuries treated, are analysed on the following page.

Analysis of Fractures and Dislocations treated to a conclusion during the Year, their Nature, together with the Results of their In-patient and Out-patient Treatment secured before or at 31*st December.*

——	Nature.		Result.					Totals.
	Simple.	Compound.	Very Good.	Good.	Medium.	Poor.	Died.	
Skull	9	1	10	—	—	—	—	10
Skull with concussion	7	1	7	1	—	—	—	8
Skull with cerebral contusion	14	4	13	—	1	—	4	18
Vertebræ	4	—	2	—	1	—	1	4
Ribs	9	—	9	—	—	—	—	9
Clavicle	1	—	1	—	—	—	—	1
Scapula	3	—	3	—	—	—	—	3
Humerus	8	—	3	3	—	1	1	8
Radius or ulna or both	11	3	9	2	2	1	—	14
Carpus, metacarpus or phalanges	4	4	5	1	2	—	—	8
Pelvis	10	—	8	—	—	2	—	10
Femur, neck or great trochanter	5	—	1	2	—	2	—	5
Femur, shaft or lower end	19	—	14	4	—	1	—	19
Patella	6	—	6	—	—	—	—	6
Tibia	15	2	16	1	—	—	—	17
Fibula	11	1	12	—	—	—	—	12
Tibia and fibula, simple	18	—	16	1	—	—	1	18
Tibia and fibula, compound	—	13	8	2	2	1	—	13
Tarsus, metatarsus or phalanges	5	2	5	1	1	—	—	7
*Multiple bony injuries, simple	24	—	14	4	2	—	4	24
*†Multiple bony injuries, compound	—	14	3	2	—	2	7	14
Fracture-dislocations, various	12	3	8	2	3	1	1	15
Separated epiphyses	2	—	2	—	—	—	—	2
Dislocations, various	8	—	7	1	—	—	—	8
Pathological, malunited, &c.	3	—	—	1	—	2	—	3
Totals	208	48	182	28	14	13	19	256

* Multiple fractures of the vertebral column, hand and foot and cases of fractured ribs, tibia with fibula and radius with ulna are not included in this group unless associated with one or more fractures or dislocations elsewhere. Multiple fractures of the bones of the skull, face and nose are not classified as multiple.

† One or more injuries being compound, not necessarily all.

19 per cent. of the fracture and fracture-dislocation cases were of the compound variety.

Men	132, of whom	15 died.
Women	68, of whom	3 died.
Children under 16—male	40, of whom	1 died.
Children under 16—female	16, of whom	none died.
Total	256, of whom	19 died.

Special Methods of Treatment applied to the above Cases.

Manipulation under general anæsthesia	40
Application of plaster of Paris	117
Application of plaster of Paris under general anæsthesia	53
Transfixion-extension by pin or wire	50
Open operation	14
Open operation followed by application of plaster	13
Amputation for compound fracture	7
Amputation through femur—comminution of its lower end	1

The following compound fracture cases had amputation—radius and ulna (below elbow); phalanx of hand, 2 cases (of finger); tibia and fibula with delirium tremens (below knee); tibia and fibula with dry gangrene (through femur); tibia and fibula with gas-gangrene (through femur) and phalanx of foot (of toe). There was not a death after amputation.

In many cases more than one special method of treatment was applied to the individual. With few exceptions the plasters were applied to patients on the Hawley table.

Results of Treatment.

	1933.		1932.		1931.	
Very good	182	71 per cent.	172	65 per cent.	165	68 per cent.
Good	28	11 ,,	39	15 ,,	34	14 ,,
Medium or poor ..	27	11 ,,	32	12 ,,	32	13 ,,
Died	19	7 ,,	22	8 ,,	13	5 ,,
Totals	256	100 ,,	265	100 ,,	244	100 ,,

N.B.—The result of treatment is classified as "very good" only when the three following conditions are fulfilled:—

1. Little or no depreciation of function.
2. Anatomical alignment of fragments.
3. Shortening, if present, not exceeding half an inch.

The result of a fracture successfully treated by amputation is classified as medium.

Of 27 patients whose results were medium or poor, 8 had amputation; 7 were transferred to the Infirmary before completion of treatment (4 on account of age and debility, 3 on account of mental state); 4 were self-discharged to their homes or to private nursing homes; 2 had compound fracture-dislocation of the elbow joint; 2 had pathological fracture and the remaining 4 had respectively, fracture-dislocation of vertebræ, fracture-dislocation of elbow joint with myositis ossificans, compound fracture-dislocation of radius, ulna and humerus, fracture of radius and ulna.

Cause of death—

Cerebral contusion or laceration	9
Internal hæmorrhage	4
Septicæmia	2
Contusion of cervical spinal cord	2
Gas-gangrene	1
Shock and inanition (infant of 3 months)	1
Total fracture deaths	19

The average length of stay of the 256 fracture and dislocation cases analysed above was 45 days. The average daily number of beds and cots occupied by these cases was 32, *i.e.*, 20 per cent. of the 165 beds and cots available.

During the year there were treated to a conclusion, and entirely as out-patients, 100 cases of fracture and dislocation. These are not included in the above analysis and are additional. The total number of fracture and dislocation cases treated to a conclusion is therefore 356. The majority were sustained in street accidents.

Their number and severity are accounted for by the fact that within the area served by this hospital are many arterial roads along which cars can, and do, travel at speeds greater than those possible on roads within more congested areas. Consequently, when a pedestrian or a person travelling on a cycle or by car is struck, it is, as often as not, with considerable violence. Thus it is that such a large proportion sustains multiple fractures (1 in 7 of those treated as in-patients) and approximately 1 in-patient case in 5 is of the compound variety.

Attendances at the weekly orthopædic and fracture clinic at 2,214 compare with 1,342 made in 1932.

VIII.—The Work of the Special Departments.

1. Surgical	Major operations	952	
	Minor operations	1,936	
			2,888
2. Anæsthetics	General	2,071	
	Local	254	
	Spinal	24	
			2,349
3. Dental	Patients		286
	Attendances for treatment		1,022
4. Radiological	Patients investigated		1,565
	Investigations		2,685
5. Massage	Patients		583
	Treatments		8,441
6. Electro-Therapeutic and Light	Patients		206
	Treatments		2,884
7. Maternity	Women examined at ante-natal clinic		655
	Attendances at ante-natal clinic		2,330
	Births		484
	Obstetric operations		119*
	Attendances at post-natal clinic		196
8. Pathological	Investigations		1,966
9. Ear, Nose and Throat	Operations		718*
10. Therapeutic, Diagnostic, Prophylactic.	Special procedures		932
11. Casualty and Out-Patients	†Patients		4,673
	Attendances		18,716
	Operations		720*
12. Nurses' Sick Room	Admissions		63

Note.—Included in the above figures are those of the minor operations, anæsthetics, special treatments and investigations performed on, given to or made on patients in the casualty, various out-patient departments and nurses' sick room.

---

* These operations are included in the numbers of major and minor operations and are not additional.

† Ante-natal and post-natal patients, attendances and operations included.

Department of Surgery.

Analysis of Operations performed during the Year.

	In-Patients.		Casualty and Out-Patients.		Nurses.		Totals.
	Major.	Minor.	Major.	Minor.	Major.	Minor.	
General—							
On skin and superficial structures ..	26	203	—	452	—	8	689
On arteries, veins and lymphatics ..	1	27	—	27	—	2	57
On nerves	—	—	—	1	—	—	1
On bones and joints	100	241	3	117	—	1	462
On muscles, tendons, bursæ and fasciæ	11	3	—	4	—	—	18
Amputations	12	6	—	1	—	—	19
On skull, brain and spine	2	2	—	1	—	—	5
On face	—	6	—	—	—	—	6
On eye	2	2	—	36	—	—	40
On mouth, pharynx and œsophagus..	—	3	—	—	—	—	3
On thyroid, accessory glands and neck	1	4	—	—	—	—	5
On breast	4	14	—	—	—	—	18
On thorax and contents	10	6	—	—	—	—	16
On abdominal wall and cavity ..	66	3	—	—	—	—	69
On stomach and duodenum	27	—	—	—	—	—	27
On intestine, rectum and anus ..	164	31	—	—	1	1	197
On liver, gall-bladder, pancreas and spleen	10	—	—	—	—	—	10
On kidney, and urinary tract ..	75	79	3	10	—	—	167
On male generative organs	20	56	—	—	—	—	76
On female generative organs ..	126	36	—	—	—	—	162
Unclassified	—	4	—	—	—	—	4
	657	726	6	649	1	12	2,051
Special—							
Obstetric	35	44	—	40	—	—	119
On ear, nose and throat	251	439	—	25	2	1	718
	943	1,209	6	714	3	13	2,888
Grand totals	2,152		720		16		

Operations—

Major	952
Minor	1,936

Operative Mortality Rates—

Per 100 major operations	3·26
Per 100 minor operations	0·10
Per 100 major and minor operations	1·14

When the period of anæsthesia for an operation classified as minor exceeds half an hour, that operation is deemed a major one.

Operations performed in Theatres—

——	General.	Ear, Nose and Throat.	Totals.
By Medical Superintendent	4	582	586
By Deputy Medical Superintendent	435	20	455
By Visiting Surgeon	371	3	374
By Resident Assistant Medical Officers	150	103	253
Totals	960	708	1,668

A detailed list of the operations performed during the year in the theatres, wards, casualty and out-patient departments would serve no useful purpose.

Below are given, under anatomical headings, the names and numbers of the operations most frequently performed.

On Skin and Superficial Structures (689)—

Toilet and suturing of wound	413
Toilet and tannic acid treatment of burn or scald	25
Incision for abscess, cellulitis, boil or carbuncle	92
For septic infection of hand	68

On Bones and Joints (462)—

With few exceptions these were in connection with fractures and dislocations, and were performed in the wards by the Deputy Medical Superintendent. Some have been detailed below the analysis of fractures. Transfixions by pin and wire (45), open operations for reduction and fixation of fragments (21), manipulations of fragments (230), and applications of plaster of Paris (136) constitute the majority of the operations in this section.

On Abdominal Wall and Cavity (69)—

Herniotomy for inguinal and femoral herniæ (13 strangulated)	30
Herniotomy for ventral and umbilical herniæ (1 strangulated)	5
Laparotomy—exploratory and for adhesiolysis, peritonitis, abscess, etc.	28

On Stomach, Duodenum, Intestine, Rectum, Anus, Gall-Bladder (234)—

For peptic ulcer (17 perforated)	24
Enterostomy/colostomy, with/without resection	8
Appendicectomy	112
Appendicectomy with drainage	33
Drainage of appendix abscess without appendicectomy	3
Proctoscopy, sigmoidoscopy	8
For ischiorectal and anal abscess	14
Cholecystostomy, cholecystectomy	8

On Kidney, Ureter, Bladder and Urethra (167)—

Cystoscopy (minor operation)	72
Cystoscopy and ureteric catheterisation	54
Suprapubic cystostomy	9
Nephrectomy, nephrotomy	7

On Male Generative Organs (76)—

Suprapubic prostatectomy, diathermy of prostate	13
Circumcision (minor operation)	53

On Female Generative Organs (162)—

On ovary and/or tube	10
For ectopic gestation	4
Uterine curettage	9
Uterine/vaginal plugging and/or glycerine injection	23
Curettage for abortion	79
Hysterectomy	10
Vaginal plastic operation	5

Laparotomy was performed 284 times. This number does not include herniotomies for inguinal and femoral herniæ and open operations on the kidney and bladder; 148 laparotomies were for appendicitis. During the year 150 persons were discharged or died after operations for appendicitis.

Analysis of Operations for Appendicitis performed on Patients treated to a Conclusion.

—	Males.			Females.			Totals.		
	Relieved.	Died.	Total.	Relieved.	Died.	Total.	Relieved.	Died.	Total.
Acute*	29	—	29	27	—	27	56	—	56
Acute with local peritonitis ..	26	—	26	13	1	14	39	1	40
Acute with local abscess	7	—	7	3	—	3	10	—	10
Acute with general peritonitis ..	14	2	16	4	2	6	18	4	22
Subacute or chronic	13	—	13	9	—	9	22	—	22
Totals	89	2	91	56	3	59	145	5	150

* Appendices proved by section to be acutely inflamed.

Operative mortality-rate of 128 acute cases = 3·9 per cent. (5·1 per cent. in 1932.)

2. Department of Anæsthetics.

Unless contra-indicated an injection of omnopon-scopolamine or nembutal by mouth is used as a routine measure for basal narcosis.

Analysis of Anæsthetics administered during the Year.

—	In-Patients.	Casualties and Out-Patients.	Dental.	Totals.
General Anæsthesia—				
By chloroform, ether or mixture ..	422	6	20	448
By ethyl chloride with/without ether..	467	7	23	497
By nitrous oxide and oxygen	208	87	324*	619
By nitrous oxide, oxygen and ether ..	496	—	11	507†
Local Anæsthesia—				
By application to mucous membrane ..	85	18	—	103
By freezing with ethyl chloride ..	15	1	—	16
By infiltration	70	27	12	109
Regional by infiltration and nerve block	12	—	14	26
Spinal Anæsthesia—				
By intrathecal injection	24	—	—	24
Totals	1,799	146	404	2,349

* Administered by the nasal route.
† Includes 243 administrations by the endo-tracheal route.

Summary.

General anæsthetics	2,071
Local anæsthetics	254
Spinal anæsthetics	24
Total	2,349

Of the general anæsthetics given to in-patients, 181 were administered in the wards and 22 in the maternity department.

Of 2,071 general anæsthetics given in theatres, departments and wards, 1,432 were administered by Dr. Attwood.

There was one death under anæsthesia. This occurred suddenly during the administration of open chloroform and ether mixture to a man aged 23. The anæsthetic was given in the ward for the manipulation of multiple compound comminuted fractures.

3. Dental Department.

Analysis of Patients treated, Attendances made and Treatments given during the Year.

	Number treated.	Attendances for treatment.
Hospital in-patients	158	533
Infirmary patients	34	117
Ante-natal clinic cases	67	167
Other out-patients	27	205
Totals	286	1,022

		Attendances.
For extractions under general anæsthesia*	370	
,, ,, ,, local anæsthesia*	16	
,, ,, without anæsthesia	10	
	——	396
For osteotomies for buried roots and impactions ..		15
,, fillings		57
,, gum treatment and scaling		52
,, examination and advice		256
,, fractured jaw (3) and dislocation (1)		46
,, dentigerous cyst (1)		26
,, dentures (17) and repairs (6)		69
,, miscellaneous procedures		105
Total number of attendances ..		1,022
Total number of teeth extracted (permanent 1922, deciduous 201)		2,123
Total number of temporary dressings		20
Total number of fillings in permanent teeth		24
Total number of fillings in deciduous teeth		107

* For analysis of dental anæsthetics, *see* under Department of Anæsthetics.

4. Radiological Department.

Hospital in-patients investigated	877
Infirmary patients investigated	64
Out-patients investigated	624
Total patients investigated	1,565

Analysis of Investigations made during the Year.

——	Appearances.		Totals.
	Normal.	Abnormal.	
Skull for injury	116	59	175
Skull and contents for disease or deformity ..	22	110	132
Lungs and mediastinum	66	115	181
Pleuræ and pleural conditions	3	156	159
Heart and aorta	4	22	26
Œsophagus, stomach and intestines	102	68	170
Biliary passages	17	16	33
Urinary system	81	38	119
Generative system	24	19	43
Bones and joints for injury	377	898	1,275
Bones and joints for disease or deformity	70	129	199
Miscellaneous—for foreign bodies, etc.	30	34	64
Dental	14	95	109
Totals	926	1,759	2,685

*Special Methods of Investigation.**

Barium meals	100
Barium enemata	15
Cholecystograms	26
Lipiodol injections	9
Pyelograms—retrograde	30
Urograms—intravenous	20
Screening the removal of a foreign body	5
Manipulation and fixation of fracture—	
Under fluorescent screen	2
Under screen and general anæsthetic	32
	239

Average number of investigations per patient	1·7
†Number of radiograms taken (560 being on X-ray paper)	5,219
†Average number of radiograms per investigation	1·94
†Average number of radiograms per patient	3·3
Number of Dental radiograms taken	979

The number of investigations made in 1933 exceeds that of 1932 by 417 and is exactly double that of 1930. Of all investigations made during the year 54 per cent. were in connection with injuries of the skull, bones and joints. Of the 926 investigations showing normal appearances 53 per cent. were made to prove the absence of fracture and/or for medico-legal purposes. The majority of the investigations of the skull and contents for disease or deformity was made in connection with cases of mastoiditis and diseases of the nasal accessory sinuses.

* Included in the above analysis of investigations and therefore not additional.

† Dental radiograms and dental patients excluded.

5. Massage *and* 6. Electro-Therapeutic and Light Departments.

Patients.	Massage.			Electro-Therapeutic.			Ultra-Violet Light.		
	In-patients.	Out-patients.	Total.	In-patients.	Out-patients.	Total.	In-patients.	Out-patients.	Total.
Remaining from 1932	20	36	56	3	10	13	5	1	6
Admitted to department	194	333	527	39	65	104	74	9	83
Remaining under treatment	14	53	67	3	12	15	5	1	6
Treated to a conclusion	200†	316	516	39	63	102	74	9	83
Treatments	3,663	4,748	8,441	733	1,399	2,132	628	124	752

Applications of radiant heat, made in conjunction with tannic acid in the treatment of burns and scalds, are not included.

Medical massage cases admitted	128	22 per cent.
Surgical massage cases admitted	455	78 ,,
Total massage cases admitted	583	100 ,,

The treatments given in the above-named departments comprise—Massage and remedial exercises, galvanism, faradism, sinusoidal current, radiant heat and ultra-violet light by mercury vapour lamps.

---

† Of these, 135 were discharged to the out-patient massage department, where they received 2,978 of the 4,748 treatments given.

7. Maternity Department.

I. ANTE-NATAL CLINIC.

Ante-natal sessions held	51
Expectant mothers examined	655
Total attendances	2,330
Average number seen per session	45·7
Average number of attendances per expectant mother	3·6
Women referred for dental treatment	275
Women referred for pathological investigation	37
Women referred for radiological investigation	37

II. STATISTICAL TABLES AND ANALYSES OF CONFINEMENTS.

Analysis of the 474 *Deliveries which took place during the Year.*

			Per cent.
Mother Admitted	Via ante-natal clinic	430	91
	As an emergency case	44	9
	Total	474	100
Civil State	Married	434	92
	Unmarried	40	8
	Total	474	100
Parous State	Primipara	299	63
	Multipara	175	37
	Total	474	100
Presentation	Vertex—occipito-anterior	435	
	Vertex—occipito-posterior	19	
	Breech—uncomplicated	18	
	Breech—complicated	6	
	Brow	1	
	Transverse	—	
	Born before admission	5	
	Total	484	

There were 10 sets of twins—

Vertex occipito-anterior and a breech	4 sets.
Vertices occipito-anterior and occipito-posterior	2 sets.
Both breech	2 sets.
Vertex occipito-posterior and a breech	1 set.
Both born before admission (vertices)	1 set.

Induction of Labour.

Indication.	Number of Cases that had Induction.		
	Of Premature Labour.	At or After Term.	Totals.
Disproportion	—	16	16
Maternal toxæmia	1	9	10
Post-maturity	—	7	7
Maternal disease	—	4	4
Ante-partum hæmorrhage	1	2	3
Bad obstetric history	—	2	2
Miscellaneous	1	3	4
Totals	3	43	46

Medical induction of labour was undertaken in 46 cases (9·7 per cent. of labours).
In 44 cases (2 of twins) it was successful and delivery was by natural forces.
In 27 cases the first, in 14 cases the second and in 3 cases the third induction was successful.
In 2 cases of disproportion induction at term failed.
Cæsarean section was performed in each of these (live births).
In no case was the puerperium morbid.
There were 46 live births and 2 still births (each due to maternal toxæmia).
There were 2 neo-natal deaths (ante-partum hæmorrhage, premature twins).

Method of Delivery of the 484 *Infants Born.*

Method of Delivery.	No. of Births.	Deaths.		
		Maternal.	Fœtal.	Neo-Natal.
Natural forces	404	2	14	16
Natural forces after induction	46	—	2	2
Manual of extended breech	3	—	—	1
Forceps	14	—	2	—
Cæsarean section	14	—	—	—
Cæsarean section after induction	2	—	—	—
Laparotomy for ruptured uterus	1	—	1	—
Totals	484	2	19	19

One maternal death undelivered is not included in the above table.

Midwives delivered	441 women
Doctors delivered	33 ,,
Midwives sought medical assistance for	157 ,,
Forceps-rate	2·9 per 100 births.
Maternal morbidity-rate after forceps	7·1 per cent.
Anæsthetics given for obstetric purposes	40
Average length of lying-in period in days	14·3

Pregnancy and Labour.

Conditions of both pregnancy and labour normal	334	70·5 per cent.
Conditions of either or both abnormal	130	27·4 ,,
Multiple cyesis and labour, normal and abnormal	10	2·1 ,,
Total	474	100 ,,

Obstetric Operations.

Application of forceps		14
Cæsarean section		11
Cæsarean section and sterilisation		5
Laparotomy, hysterectomy for ruptured uterus		1
For adherent placenta		3
Uterine plugging		2
Repair of perineum—tear grade 1	25	
tear grade 2	17	
tear grade 3	1	43
Ante-natal clinic versions		40
Total		119

Indications for which Cæsarean sections were done :—

Indication.	Booked.	Emergency.	Totals.
Contracted pelvis and disproportion	8	—	8
Disproportion and for sterilisation	1	—	1
Chronic rheumatic carditis and for sterilisation	3	1	4
Placenta prævia	1	1	2
Impacted breech	—	1	1
Totals	13	3	16

There were 13 classical and 3 lower segment operations.
There was not a maternal, fœtal or neo-natal death.

Maternal Morbidity.

The figures given under this head relate to women admitted to the maternity department for delivery and to booked cases delivered before admission. Of this group all who had pyrexia in the puerperium (Ministry of Health standard) and all who died after delivery or undelivered are included as morbid.

Cases of abortion and ectopic gestation are not admitted to the department. The maternal morbidity of cases of abortion is given under the head of abortion. No case of ectopic gestation was morbid.

——	Booked.	Emergency.	Totals.
Pyrexial cases	22	3	25
Maternal deaths (all apyrexial)	2	1*	3†
Pyrexial cases and maternal deaths	24	4†	28†
Number of women delivered	430	45†	475†
Maternal morbidity-rate per 1,000 delivered	55·8	88·8	58·9

* Undelivered.
† Includes one who died undelivered.

Pyrexia in the Puerperium.

The Ministry of Health standard of puerperal pyrexia is adopted.

Unless there is definite evidence to the contrary every case of pyrexia occurring in the puerperium is assumed to be due to uterine infection.

In addition to the conditions generally accepted as sequelæ of uterine infection, the following, when they occur in the puerperium, are returned also under that head :—thrombosis, thrombophlebitis, phlegmasia alba dolens, pulmonary embolus, pneumonia and broncho-pneumonia.

During the year 25 cases of pyrexia in the puerperium occurred. All recovered and were discharged.

Analysis of the 25 Puerperal Pyrexial Cases.

Register No.	Age.	Gravida.	Maturity (weeks).	Complication of Labour and/or Maternal Complication.	Method of Delivery.	Pyrexia.*		Cause of Pyrexia.	Cervical Swabbing.	Duration of Pyrexia in days.†	Births.
						Date of Onset.	Day of Puerperium.				
51	25	1	40	None	Natural forces	1 Jan.	6	Engorged breasts	—	4	Live.
137	33	1	40	,,	,,	20 ,,	12	Influenza	—	1	,,
298	28	1	40	,,	,,	26 ,,	3	Abscess of breast	—	9	,,
299	21	1	40	,,	,,	26 ,,	2	Influenza	—	13	,,
255	23	1	40	Toxæmia of pregnancy	,,	26 ,,	5	,,	—	4	,,
217	20	1	40	,,	,,	28 ,,	9	,,	—	3	,,
254	17	1	40	None	,,	7 Feb.	11	Engorged breasts	—	3	,,
557	28	2	40	,,	,,	12 ,,	8	Abscess of breast	—	10	,,
713E	19	1	40	Tuberculous pleurisy	,,	18 Mar.	2	Pleurisy and abscess of breast	—	25	,,
792	32	1	40	None	,,	18 Apr.	11	Abscess of breast	—	11	,,
773	20	1	40	Albuminuria	,,	26 ,,	1	Uterine infection	N.H.S.	6	,,
765	26	1	40	None	,,	29 ,,	12	Engorged breasts	—	4	,,
811	23	1	40	,,	,,	12 May	12	,,	—	2	,,
909	43	12	40	Disproportion	Cæsarean	15 ,,	7	Septic abdominal wound	—	6	,,
916	21	1	40	Chronic endocervicitis	Natural forces	21 ,,	2	Engorged breasts	—	9	,,
1068	28	1	40	Pyelitis and uterine inertia	Episiotomy, forceps	30 ,,	1	Bacillus coli pyelitis	N.H.S.	5	,,
1231	29	1	40	None	Natural forces	20 July	10	Engorged breasts	—	2	,,
1309	22	1	40	Disproportion	Cæsarean	21 ,,	1	Stitch abscess	—	9	,,
1368	24	2	40	None	Natural forces	10 Aug.	10	Engorged breasts	—	4	,,
1455	25	1	40	Uterine inertia	Forceps	14 ,,	1	Infected cervical tear	N.H.S.	9	S.B.M.
1795	20	1	40	None	Natural forces	24 Oct.	3	Uterine infection	H.S.	4	Live.
2102E	36	1	40	Pyelitis and uterine inertia	,,	26 Oct.‡	—	Uterine infection and pyelitis	N.H.S.	32	S.B.M.
1976	28	1	40	Bacillus coli pyelitis	,,	30 ,,	1	Bacillus coli pyelitis	—	19	Live.
2023	21	1	40	Normal multiple labour	,,	2 Dec.	1	Toxæmia of pregnancy	N.H.S.	13	,,
2121E	34	1	40	Impacted breech	Cæsarean	4 ,,	2	Uterine infection	N.H.S.	9	,,

* Date and day of the second recording of a temperature of 99° F., or over. In every case the date given here is earlier than that on which the pyrexia became notifiable.

† From date of onset to date of settlement at normal. E. after a register number indicates an emergency case. N.H.S.—Non-hæmolytic streptococci. H.S.—Hæmolytic streptococci (S. pyogenes).

S.B.M.—Stillbirth, macerated. ‡ Date of delivery, pyrexia pre-existed.

Summary of the 25 pyrexial cases.

Breast condition	10
Uterine infection (Puerperal fever)	5
Influenza	4
Urinary infection	2
Abdominal wound condition	2
Maternal toxæmia	1
Tuberculous pleurisy	1
Total	25

Of the 25 women who had pyrexia in the puerperium, 22 were primiparæ.

Maternal Deaths.

Register No.	Age.	Gravida.	Maturity (weeks).	Complication of Labour and/or Maternal Complication.	Method of Delivery.	Class I.*	Class II.*	Group 1.*	Group 2.*	Births.
1000	27	1	30	Advanced pulmonary tuberculosis	Natural forces	—	Yes	—	Yes	Live.
1453	37	3	32	Ante-partum hæmorrhage, marginal placenta prævia	”	Yes	—	Yes	—	Live.
1806E	31	3	36	Ante-partum hæmorrhage, lateral placenta prævia†	Died undelivered	Yes	—	Yes	—	—
3						2	1	2	1	2

---

* Vide Final Report of Departmental Committee on Maternal Mortality and Morbidity, 1932. Class I.—Deaths directly due to childbearing (abortions and ectopics are not included here); Class II.—Death due to an independent disease; Group 1.—Cases showing a primary avoidable factor; Group 2.—Case showing no primary avoidable factor. E after a register number indicates an emergency case. † Moribund on admission.

Case 1453 had several small ante-partum hæmorrhages. Hysterectomy was indicated and advised but owing to her desire for a live child an expectant attitude was adopted. Labour was precipitate and accompanied by severe hæmorrhage from which she died. An adherent placenta was removed manually. Case 1806E had failed to secure ante-natal care. She was admitted moribund.

Maternal Mortality Rates.

Per 1,000 Booked cases delivered (no deaths undelivered) = 4·7
Per 1,000 Emergency cases delivered (one death undelivered) = 22·2
Per 1,000 Total cases delivered (one death undelivered) = 6·3

III. Maternity Infants' Report.

Births.

		Per cent.
Full time	423	87·4
Premature	42	8·7
Stillborn	19	3·9
Total births	484	100

Average weight at birth of infants—booked cases	7 lbs. 1 oz.
Average weight at birth of infants—emergency cases	6 lbs. 4 ozs.
Infants not entirely breast fed	22

Stillbirths.

Details of the 19 Stillbirths.

Maternal Complication.	Method of Delivery.	Infant.	Cause of Fœtal Death.
Booked (9)—			
Toxæmia	Natural forces	F.T.	Intra-cranial hæmorrhage.
,,	,,	F.T.M.	Maternal toxæmia.
Contracted pelvis	,,	F.T.M.	Intra-cranial hæmorrhage.
Placenta prævia	,,	P.	Separated placenta.
Uterine inertia	Forceps	F.T.M.	Tentorial tear.
Ruptured uterus	Laparotomy	F.T.	Separated placenta.
None	Natural forces	F.T.M.	Hydrocephalus.
,,	,,	P.M.	Unknown.
,,	,,	P.	,,
Emergencies (10)—			
Toxæmia	,,	P.M.	Maternal toxæmia.
,, (eclampsia)	,,	F.T.M.	,,
,,	,, *	P.	,,
Toxæmia and hydramnios	,, *	P.	Maternal conditions.
Toxic ante-partum hæmorrhage	,,	P.M.	Maternal toxæmia.
Pyelitis and uterine inertia	,,	F.T.M.	Complication of labour.
Ante-partum hæmorrhage	,,	F.T.	Separated placenta.
Uterine inertia	Forceps	F.T.	Complication of labour
Chronic endometritis	Natural forces	P.M.	Placental disease.
? Syphilis (W.R. negative)	,,	P.M.	,,

* After medical induction. F.T. = Full-time; F.T.M. = Full-time macerated; P. = Premature; P.M. = Premature, macerated; W.R. = Wassermann reaction.

Summary of causes of stillbirths.

Cause of Stillbirth.	Booked.	Emergency.	Totals.
Maternal conditions	1	5	6
Complications of labour	2	3	5
Placental states	—	2	2
Fœtal states	4	—	4
Unknown	2	—	2
Totals	9	10	19

Neo-Natal Deaths.

Details of the 19 Neo-Natal Deaths (deaths within 4 weeks of birth).

Cause of Death.	Maternal Complication.	Method of Delivery.	Weight at Birth.		Age.
			lbs.	ozs.	
Booked (15)—					
Prematurity	None	Natural forces	4	3	8 days.
,,	,,	,,	3	1	2 ,,
,,	Toxæmia	,,	2	15	10 mins.
,,	,,	,,	4	3	1 hour.
,,	Pyelitis	,,	2	8	2 days.
,,	Pulmonary tuberculosis	,,	3	13	3 ,,
Spina bifida	None	,,	6	12	3 ,,
,,	,,	,,	6	5	10 ,,
,,	Pyelitis	,,	6	7	4 ,,
Mongolism	None	,,	6	0	19 ,,
Exomphalos	,,	,,	4	12	2 ,,
Sclerema	,,	,,	5	6	4 ,,
Atelectasis*	,,	,,	4	10	21 hours.
Tentorial tear	,,	,,	7	15	2 ,,
,,	,,	,,	9	6	20 ,,
Emergencies (4)—					
Prematurity	None	,,	3	4	8 days.
,,	Placenta prævia	,,	2	6	30 mins.
,,	Ante-partum hæmorrhage	,, †	2 2	0 1	2 days. 9 ,,

* Premature infant.
† Multiple labour, medically induced.

Summary of causes of neo-natal deaths.

	Booked.	Emergency.	Totals,
Prematurity	6	4	10
Congenital abnormality	7	—	7
Birth injury	2	—	2
Totals	15	4	19

Infantile Mortality Rates.

		Per cent.
Of 484 infants born	19 were stillborn and 19 died	= 7·9
Of 465 infants born alive	19 died	= 4·1
Of 42 premature infants born alive	11 died	= 26·2

IV. ANALYSIS OF CASES OF NORMAL AND ABNORMAL PREGNANCY, PARTURITION AND PUERPERIUM TREATED TO A CONCLUSION IN MATERNITY AND OTHER WARDS DURING THE YEAR.

—	Booked.	Emergencies.	Totals.
Pregnancy, normal	1	5	6
Pregnancy and spurious labour pains	19	1	20
Toxæmia of pregnancy	4	2	6
Ectopic gestation	—	5	5
Pregnancy and ante-partum hæmorrhage	1	2	3
Pyelitis of pregnancy	5	8	13
Other affections connected with pregnancy	1	4	5
Abortion, threatened	—	12	12
,, incomplete and complete	3	70	73
,, missed	—	1	1
,, with post-abortum infection/sequela	—	28	28
Labour, normal	322	11	333
,, normal and toxæmia of pregnancy	13	4	17
,, normal and affection connected with pregnancy	21	2	23
,, abnormal	61	13	74
,, abnormal and toxæmia of pregnancy	4	4	8
,, abnormal and affection connected with pregnancy	8	3	11
,, multiple	7	3	10
Puerperium, normal*	5	4	9
Affections consequent on parturition*	1	13	14
Totals	476	195	671

Among the 671 cases analysed above there occurred 7 deaths. Details of 3 of these are given under the head of maternal deaths. The remaining 4 occurred in emergency cases; 3 were due to puerperal sepsis in women admitted for that condition after delivery in the neighbourhood and one was due to incomplete abortion with general peritonitis.

Abortion.

(Therapeutic inductions and cases of threatened abortion are not included.)

Cases treated to a conclusion		102
Pyrexial cases	18	
Death	1	
	—	
Pyrexial cases and death	19	
	—	
Maternal morbidity rate per 1,000 women who aborted		186·3

V. POST-NATAL CLINIC.

	Mothers.	Infants.	Totals.
Number of patients	71	68	139
Number of attendances	102	94	196

---

* Admitted and treated as such.

8. Pathological Department.

Analysis of Investigations made during the Year.

	Made at	
	Redhill County Hospital.	Other Hospitals.*
Ear, nose and throat swabs—culture for organisms	7	90
Cervix uteri swab—culture for organisms	—	7
Pus—stained smear for organisms	39	—
,, —culture for organisms	—	21
Smear—stained for gonococci	9	8
Blood—counts	228	—
,, —platelet counts	8	—
,, —coagulation/bleeding times	7	—
,, —grouping	48	—
,, —agglutination for T.A.B.C.	—	14
,, —Wassermann reaction	—	70
,, —chemical estimations	60	1
,, —culture for organisms	—	10
Cerebro-spinal fluid—various investigations	27	22
Pleural fluid—various investigations	17	23
Urine—microscopy of centrifugal deposit	738	—
,, —bacteriological investigations	7	9
,, —chemical investigations	152	—
Fractional test meal	5	—
Sputum—stained smear for tubercle bacilli	148	—
Fæces—bacteriological investigations	—	13
,, —for occult blood	27	—
,, —chemical investigations	—	3
Miscellaneous investigations	1	1
Pathological material for section and report	—	48
Post-mortem examinations	98	—
Totals	1,626	340
Total investigations	1,966	

Post-mortem examinations :—

On the bodies of 215 persons who died in hospital, 82 examinations were made. This gives an autopsy rate of 38 per cent. The remaining 16 examinations were made on bodies brought here for autopsy, on persons brought in dead and on stillborn infants.

---

* North Middlesex County Hospital, University College Hospital and Queen Charlotte's Hospital Research Laboratory.

9. Ear, Nose and Throat Department.

Analysis of Operations performed during the Year.

For aural furuncle, foreign body in ear, &c.	8
Paracentesis tympani	20
Paracentesis and removal of tonsils and/or adenoids	8
Mastoidectomy—(Schwartze, 85 ; Radical, 17)	102
Mastoid cauterisation, curettage, plastic (4), &c.	46
Submucous resection of septum	9
Antral puncture and wash-out	20
On nose and sinuses (various)	15
Removal of tonsils and adenoids by guillotine	338
Removal of tonsils by dissection	127
For hæmorrhage from tonsillar fossa	4
Quinsies opened	6
Laryngoscopy (2), Tracheotomy (1)	3
Mastoid/aural, examination/dressing under general anæsthesia	12
Total	718

The enucleation of tonsils and adenoids by blunt guillotine (Sluder method) is classified as a minor operation.

On completion of a mastoidectomy, adenoidectomy, if indicated, is performed as a routine procedure. Additional operations such as this are not included in the above analysis.

Operative Mortality.—There were 3 post-operation deaths. 1.—A woman of 53 died of meningitis after a radical mastoidectomy for chronic mastoiditis and labyrinthitis ; 2.—A boy of 10 died of meningitis three days after a Schwartze mastoidectomy for acute mastoiditis with superficial abscess of 18 days standing, and 3.—A boy of 5 died of streptococcal septicæmia 10 days after tracheotomy for acute streptococcal pharyngitis with oedema of the larynx.

10. Therapeutic, Diagnostic and Prophylactic Procedures.*

Analysis of Special Procedures.

Injection of serum or vaccine	351
Injection of saline, subcutaneous and intraperitoneal	44
Multiple punctures of oedematous legs	2
Autohæmotherapy	40
Blood transfusion (auto. and hetero.)	18
Intravenous injection of saline or drug	25
Venesection	3
Lumbar puncture	60
Inhalation therapy (Speiss-Drager)	40
Paracentesis of pleural cavity	58
Paracentesis of abdominal cavity	8
Gastric lavage	18
Jennerian vaccination	264
Total	932

---

* None of these has been included in the foregoing lists of operations.

11. Casualty and Out-Patient Departments.

Casualties—medical and surgical	1,567
In-patients made out-patients	650
Ante-natal cases	655
†Other out-patients	1,801
Total casualties and out-patients treated	4,673

Patients on the books at the beginning of the year	325
New casualties and out-patients	4,348
Total	4,673

Departments in which the above were treated.

Department.	Patients.	Attendances.
Medical	178	414
Surgical	1,301	3,590
Ante-natal	655	2,330
Post-natal	139	196
Ear, nose and throat	779	2,590
Dental	94	372
Orthopædic and fracture clinic	449	2,214
X-ray	624	739
Massage and Swedish remedial exercises	369	4,748
Electro-therapeutic and light	85	1,523
Totals	4,673	18,716

Average number of attendances per patient, 4.

† Patients referred by medical practitioners for a specialist's opinion and/or some special investigation or form of treatment.

Operations—

Suturing of wound	338
Toilet and tannic acid treatment of burn or scald	11
Incision of abscess, etc.	33
For septic infection of hand	36
Injection of varicose vein	27
Removal of foreign body in eye	36
Removal of foreign body in limb	38
Manipulation of fracture or dislocation	114
Application of plaster of Paris	9
Genito-urinary—various	13
External version—in ante-natal clinic	40
Ear, nose and throat—various	25
Total	720

Anæsthetics—general	100
Anæsthetics—local	46
Total	146

Admitted to hospital from out-patient department	281
Admitted to hospital from ante-natal clinic	476

12. Nurses' Sick Room.

Number of nurses at 31st December	88
Average daily strength of nursing staff	81·9
Nurses off duty sick during the year	49*
Nursing days lost	825
Average number of nursing days lost per annum—	
Per sick nurse	16·8
Per nurse on average daily strength	10·1

Disabilities.	No.	Major operations.	Minor operations.
Nose and throat conditions	17	2	1
Influenza	9	—	—
Injuries	6	—	1
Intestinal conditions	5	1	1
Septic conditions of skin and areolar tissue	5	—	3
Septic conditions of finger	4	—	5
Septic conditions of foot	4	—	—
Fibrositis group	4	—	—
Lymphadenitis	3	—	2
Miscellaneous	6	—	—
Totals	63	3	13

During the year 60 per cent. of the nursing staff was admitted to the sick room. This compares with 65 per cent. for the year 1932.

In 1932, the average number of nursing days lost per nurse on the average daily strength was 11·1.

* 10 nurses off duty twice, 2 nurses off duty thrice, making 63 admissions to the nurses' sick room.

Comparative Tables.

——	1931.	1932.	1933.
Beds—complement at 31st December	215	215	215
,, average daily complement	213·8	215	215
,, average daily number available	208·3	209·7	209·6
,, average daily number occupied	183	190	192
Average daily percentage of available beds occupied	87·8	90·6	91·7
Patients per occupied bed—average number per annum	19·4	18·5	19·7
Nursing staff—average daily strength	66·1	76·7*	81·9†
Occupied beds—average number per nurse	2·9	2·5*	2·3†
Admissions—average daily number	9·9	9·4	10·4
,, percentage by Medical Superintendent	57·1	50·3	48·6
On danger list—average daily percentage	10·1	10·5	12·2
Length of stay—average in days per patient	18·9	19·8	18·6
Medical cases	805	748	810
Surgical cases	2,741	2,768	2,972
Total cases treated to a conclusion	3,546	3,516	3,782
Patients—cured per cent.	73·2	72·6	73·3
,, relieved ,,	17·9	19·1	19·5
,, unrelieved ,,	2·5	2·5	1·5
,, died ,,	6·4	5·8	5·7
Operations—major	756	866	952
,, major and minor	2,373	2,813	2,888
Anæsthetics—general	1,763	2,127	2,071
Dental patients	312	301	286
,, attendances for treatment	974	1,031	1,022
Radiological investigations	1,656	2,268	2,685
Massage treatments	4,934	5,196	8,441
Electro-therapeutic and light treatments	811	1,790	2,884
Ante-natal clinic—women examined	522	652	655
,, ,, ,, attendances	2,274	2,450	2,330
Confinements	502	520	474
Maternal mortality rate per 1,000 delivered	6·0	11·5	6·3
Maternal morbidity rate per 1,000 delivered	45·8	73·1	58·9
Births	514	529	484
Stillbirth rate per cent.	5·0	4·0	3·9
Infantile mortality rate per 100 total births	6·8	7·2	7·9
Infantile mortality rate per 100 born alive	2·6	3·4	4·1
Pathological investigations	1,227	1,368	1,966
Casualties and out-patients	2,276	3,249	4,673
Casualty and out-patient attendances	6,852	11,583	18,716

* Includes Matron, 8 nurses not employed in the wards and 3 masseuses. (Total, 12).

† Includes Matron, 13 sisters and nurses not employed in the wards and 3 masseuses. (Total, 17).

APPENDIX III.

ANNUAL REPORT ON THE WORK OF CENTRAL MIDDLESEX COUNTY HOSPITAL DURING 1933, PREPARED BY THE MEDICAL SUPERINTENDENT.

Accommodation.

The beds in this hospital have been fully occupied throughout the year by patients, and it has at times been impossible to accept cases which require admission.

Opening of New Wing.

A Children's block of 104 beds was opened by Sir George Newman on 30th June, 1933.

There are often as many as 80 children in the accommodation on the first two floors for 60 children, which shows that the top floor, now used for a maternity ward, is really required for children.

The opening of this block released 25 more beds on the male side; these are nearly always occupied.

Maternity.

Owing to the small number of beds in the maternity block, it was decided to adapt the top floor of the children's block for maternity work, and it was opened as such on December 13th, 1933. Although this gave 28 beds and 28 cots, it has been continuously full since, and cases have been refused. The old block is now used an an ante-natal clinic.

New X-ray and Electro-Therapeutical Departments.

These departments were opened early in the year, and both are extending their activities, the attendances in the latter department since the opening have now risen to 3,168.

An arrangement has now been made for the radiographer to be employed full time, and also for a full-time assistant to be added, thus covering every day of the week.

Staff.

Owing to the increase of work in all departments an additional assistant medical officer has been added to the staff.

Accommodation of Nursing Staff.

41 nurses are occupying a block which formerly contained 100 male beds, cubicles having been put up for them. This cuts down the accommodation for patients, and the position can only be altered by building the addition to the nurses' home.

Staff.

WHOLE-TIME MEDICAL STAFF.

Medical Superintendent—

W. E. Turner, M.R.C.S., L.R.C.P.

Deputy Medical Superintendent—

T. G. I. James, M.D., M.Ch., B.Sc., F.R.C.S. (Eng. and Edin.).

Assistant Medical Officers—

N. M. Matheson, M.B., F.R.C.S.(Eng.), M.R.C.P.
A. D. Abdullah, M.B., Ch.M., M.R.C.P.
E. H. Capel, M.D., B.S., M.R.C.P.
J. Sakula, M.B., B.S., M.R.C.S., L.R.C.P.
J. S. MacVine, M.B., B.S.

VISITING MEDICAL STAFF.

Radiologist—

A. Flett, M.D., D.M.R.E.

Electro Therapist—

C. A. Robinson, M.A., M.B., B.Ch., D.M.R.E.

NURSING STAFF.

Matron—Miss B. Gebhard. *Nurses*—259 (including male nurses and midwives).

Beds.

	Males.	Females.	Children's Cots.
Acute medical	117	142	36
Acute surgical	70	50	38
Chronic sick (including feeble minded)	90	179	—
Mental (short stay)	7	7	—
Tuberculosis	9	8	—
Maternity	—	28	28
Nursery	—	10	40
Total	293	424	142

Total number of beds	859
Daily average number of beds occupied	726
Maximum number of beds occupied	821—30th Dec.
Minimum number of beds occupied	681—30th Sept.

Statistical Tables for the year ended 31st December, 1933.

Remaining in hospital, 1st January, 1933	712	
Admitted	4,689	
Born in hospital	463	
		5,864
Discharged	4,369	
Died	673	
Patients treated to a conclusion during the year		5,042
Remaining in hospital on 31st December, 1933	822	

Classification of Patients Treated to a Conclusion.

Male infants under 3	419	
Boys, 3–16	247	
Men	1,467	
		2,133
Female infants under 3	354	
Girls, 3–16	217	
Women	2,338	
		2,909
Total		5,042

1.—TABLE SHOWING DURATION OF STAY OF THE 5,042 PATIENTS TREATED TO A CONCLUSION DURING THE YEAR.

Four weeks or less	3,598
Exceeding four weeks but under thirteen weeks	1,095
Exceeding thirteen weeks	349
Total	5,042

2.—TABLE SHOWING WHITHER THE 5,042 PATIENTS WERE DISCHARGED.

Home	3,946
To other public assistance institutions	170
Fever hospitals	33
Sanatoria	22
Convalescent homes	17
To mental hospitals	181
Died	673
	5,042

III.—TABLE SHOWING THE RESULTS OF TREATMENT OR THE TERMINATION.

		Per cent.
Cured	3,456	68·54
Relieved	539	10·69
In statu quo	374	7·42
Died	673	13·35
	5,042	100·00

Deaths.

Ages.	Male.	Female.	Total.
Under 1 year	27	22	49
1–5 years	6	9	15
5–10 years	5	2	7
10–15 years	3	3	6
15–20 years	9	4	13
20–30 years	11	14	25
30–40 years	27	15	42
40–50 years	30	33	63
50–60 years	55	46	101
60–70 years	70	56	126
70–80 years	58	79	137
Over 80 years	35	54	89
Totals	336	337	673

Deaths within 24 hours of admission	88
Deaths within 48 hours of admission	38
Deaths within 72 hours of admission	20
	146
All other deaths	527
Total	673

IV.—TABLE SHOWING THE DISTRICTS TO WHICH THE 5,042 DISCHARGES BELONGED.

Willesden	3,869
Acton	380
Hendon and Harrow	638
Other areas	155
Total	5,042

V.—TABLE SHOWING HOW THE 5,042 DISCHARGES WERE ADMITTED.

By Relieving Officers' orders	3,323
By Medical Superintendent—	
Births	465
Police cases (other than accidents)	151
Accidents	264
Maternity cases (emergency)	237
Transfers	151
Other urgent cases	451
Total	5,042

CLASSIFICATION OF THE DISEASES FOR WHICH THE 5,042 PATIENTS WERE PRIMARILY TREATED.

Disease or Condition.	Children under 16 Years of Age.		Men and Women.	
	Dis-charged.	Died.	Dis-charged.	Died.
Acute infectious disease	86	11	96	53
Influenza	2	—	60	2
Tuberculosis, pulmonary	—	—	58	33
,, non-pulmonary	—	1	12	2
Malignant disease	1	—	58	85
Rheumatism, acute	19	—	37	—
,, non-articular	5	—	23	—
,, chronic arthritis	3	—	48	—
Venereal disease	1	—	19	—
Puerperal pyrexia	—	—	8	1
,, fever (admitted from outside)	—	—	—	1
Diseases of child bearing	—	—	201	1
Mental diseases (senile dementia)	—	—	5	—
,, ,, (other)	6	—	309	—
Senile decay	—	—	49	68
Accidental injury and violence	104	1	294	16
Diseases of nervous and sense organs	71	8	181	16
,, respiratory system	49	7	230	59
,, circulatory system	4	4	134	168
,, digestive system	128	9	462	30
,, genito-urinary system	21	2	202	35
,, skin	40	1	76	4
Other diseases	76	10	180	17
Maternity, mothers	—	—	457	3
,, infants	443	25	—	—
No disease	104	—	7	—
Totals	1,163	79	3,206	594

Grand total .. ..5,042.

Diseases and Conditions treated to a Conclusion.

(Grouped in order of frequency.)

	Treated.	Died.
Pregnancy, parturition and puerperium	672	6
Diseases of the digestive system	629	39
Births	468	25
Diseases of the respiratory system	345	66
Injuries—general and local	415	17
Mental diseases	320	—
Diseases of the circulatory system	310	172
Diseases of the nervous system	276	24
Diseases of the genito-urinary system	260	37
Acute infectious diseases	246	64
Rheumatism	135	—
Diseases of skin and areolar tissue	121	5
Senile decay	117	68
Malignant disease	144	85
Tuberculosis	106	36
Influenza	64	2
Venereal diseases	20	—
Diseases of remaining groups	283	27
No disease	111	—
	5,042	673

Mental Patients.

	Male.	Female.	Total.
Number remaining in wards on 31st December, 1932	1	1	2
Number of admissions during the year	91	177	268
Number of discharges to wards (not certified)	31	53	84
Number of discharges to care of friends (not certified)	4	2	6
Number transferred to mental hospitals	56	120	176
Number died	—	1	1
Number remaining in wards on 31st December, 1933	—	1	1

Analysis of Admissions of Mental Patients.

How admitted.	Male.	Female.	Total.
Placed under order by Medical Superintendent	19	71	90
Placed under order by relieving officers (Willesden)	12	17	29
Placed under order by relieving officers (Hendon)	30	71	101
Placed under order by justices or police	30	18	48
Total	91	177	268

Work of the Special Departments.

Surgical	Major operations	629	
	Minor operations	938	
			1,567
Anæsthetics	General	725	
	Local	493	
	Spinal	81	
			1,299
Dental	Extractions		56
Radiological	Investigations		2,814
	Radiograms		6,160
Massage	Patients treated		229
	Treatments		7,668
Electrical Treatment	Patients treated		203
	Treatments		5,748
Maternity	Women examined at ante-natal clinic		511
	Attendances at ante-natal clinic		1,672
	Deliveries		475
	Obstetric operations		30
Pathological	Investigations (otherwise than in hospital)		3,115
Out-patients	Number of patients seen		1,021
	Number of attendances		1,884
	Number who had received in-patient treatment previously		75
	Number who were subsequently admitted for in-patient treatment		61
Nurses sick room	Admissions		84

1. Department of Surgery.

Analysis of Operations Performed during the Year.

On skull, spine, brain and spinal cord	18
On sympathetic nervous system	5
On abdomen and its contents	431
On genito-urinary organs	204
On bones and joints	84
On muscles, tendons and bursæ	11
Amputations	7
On arteries	3
On thorax and its contents	34
On ear, nose and throat	74
On larynx and throat	8
On female generative organs (gynæcological)	177
,, ,, (obstetrical)	30
Miscellaneous*	481
Total	1,567

---

* Dental extractions (56), minor operations in the out-patient department, such as suturing wounds, etc., and repairs of perineal tears are not included.

ANALYSIS OF OPERATIONS MOST COMMONLY PERFORMED.

On Skull, Spinal Cord and Nervous System (23).

Trephining	12
For scalp injury	4
Laminectomy	2
On sympathetic nervous system	5

On Abdominal Cavity and Abdominal Wall (431).

For peptic ulcer (25 perforated)	39
Cholecystotomy, cholecystectomy	14
Appendicectomy	70
Appendicectomy with drainage	110
Enterostomy/colostomy with/without resections	31
Herniotomy (12 strangulated)	47
Miscellaneous group (laparotomy, exploratory or for peritonitis, abscess, etc.)	120

On Kidney, Ureter, Bladder & Urethra (182).

Cystoscopy	108
Cystoscopy and ureteric catherisation	47
Cystoscopy and fulguration	2
Suprapubic cystotomy and cystectomy	13
Nephrectomy, nephrotomy	12

On Male Generative Organs (22).

Suprapubic prostatectomy	4
Operations on testicle	11
Circumcisions	7

On Female Generative Organs (177).

Caesarean section	2
Hysterectomy	7
For retroversion	5
On tube and/or ovary	27
For ectopic gestation	9
Curettage	95
Plastic operations on vagina	32

On Bones, Joints, Tendons, etc. (102).

For fractures	61
For osteomyelitis	21
On tendons, bursae and cartilages	13
Amputations	7

On Ear, Nose and Throat (80).

Mastoidectomy	37
Tonsillectomy	30
Incision for quinsy	4
Nasal/aural polypi	2
On nasal sinuses	1
Tracheotomy	6

Miscellaneous Group (520).

This includes drainage of empyemata, abscesses, minor rectal operations, skin grafts, etc., etc.

Analysis of Operations for Appendicitis performed on Patients treated to a Conclusion.

	Males.			Females.			Totals.		
	Relieved.	Died.	Total.	Relieved.	Died.	Total.	Relieved.	Died.	Total.
Acute	68	3	71	79	2	81	147	5	152
Acute with local peritonitis ..	1	—	1	5	—	5	6	—	6
Acute with local abscess	5	—	5	9	—	9	14	—	14
Acute with general peritonitis ..	8	1	9	5	2	7	13	3	16
Subacute or chronic	3	—	3	3	—	3	6	—	6
Totals	85	4	89	101	4	105	186	8	194

Operative mortality for acute cases—3·2 per cent.

Analysis of Fractures and Dislocations treated to a Conclusion during the Year, together with the Results of Treatment.

Fracture or Dislocation.	Result.			Total.
	Good.	Medium.	Died.	
Skull	11	1	4	16
Skull with concussion	1	—	1	2
Vertebrae	2	—	—	2
Ribs	11	—	2	13
Clavicle	8	1	—	9
Scapula	2	—	—	2
Humerus	4	—	—	4
Radius or ulna or both	9	8	—	17
Carpus, metacarpus or phalanges	1	2	—	3
Pelvis	5	—	—	5
Femur	16	5	5	26
Patella	2	—	—	2
Tibia	10	3	—	13
Fibula	5	1	—	6
Tibia and fibula, simple or compound	13	2	—	15
Tarsus, metatarsus or phalanges	4	1	—	5
Multiple bony injuries, simple or compound	1	2	1	4
Dislocations, various	14	14	—	28
Fractures due to disease, ununited fractures, etc.	—	3	—	3
Totals	119	43	13	175

Male fracture cases	95
Female fracture cases	80
Total	175

2. Department of Anæsthetics.

Analysis of Anæsthetics administered during the Year.

General Anæsthesia.		
By chloroform, ether or mixture	670	
,, nitrous oxide	50	
,, ethyl chloride	5	
		725
Local Anæsthesia.		
By application to mucous membrane	11	
,, freezing with ethyl chloride	40	
,, infiltration	402	
Regional	5	
Dental	35	
		493
Spinal Anæsthesia.		
By intrathecal injection	77	
,, sacral ,,	4	
		81
Total		1,299

3. Radiological Department.

Number of in-patients radiographed	2,623
Number of out-patients radiographed	191
Total	2,814

Analysis of investigations made during the year—

	Patients.	*Films taken.*
Skull	257	509
Lungs—diseased	498	571
Lungs—pleuræ	97	117
Heart	46	71
Biliary	66	117
Alimentary	313	1,044
Urinary	281	869
Generative	28	62
Bones—injured	655	1,416
Bones—diseased	517	1.275
Miscellaneous	53	102
Teeth	3	7
Totals	2,814	6,160

Special methods of investigation (included in the above)—

Lipiodol injections	nil
Cholecystography	28
Urography	76
Enemata	34
Pyelography	20
Barium meals	224
Sialograms	1
Miscellaneous	1
Total	384

Screen examinations—

Barium meals	143
Enemata	29
Lungs	122
Heart	3
Miscellaneous	1
Total	298

4. Massage Department.

Admitted for treatment	229
Treated to a conclusion	204
Remaining under treatment	25

In-patients	181	Treatments	7,005
Out-patients	48	Treatments	663
Total	229	Total	7,668

5. Electrical Department.

Admitted for treatment	203
Treated to a conclusion	156
Remaining under treatment	47
In-patients	117
Out-patients	86
Total	203
Treatments	5,748
Attendances	3,168

6. Maternity Department.

Ante-natal clinic.

Ante-natal sessions held	51
Expectant mothers examined	511
Total attendances	1,672
Average number per session	32
Average number of attendances per expectant mother	3·2

Analysis of the 475 *Deliveries which took place during the year.*

			Per cent.
Mother admitted	Via ante-natal clinic	415	87
	Not via ante-natal clinic	60	13
	Total	475	100
Civil State	Married	428	90
	Unmarried	47	10
	Total	475	100
Parous State	Primipara	246	52
	Multipara	229	48
	Total	475	100
Presentation	Vertex occipito-anterior	444	
	Vertex occipito-posterior	20	
	Breech-uncomplicated	11	
	Breech-complicated	2	
	Face	6	
	Brow	1	
	Total	484	

There were 9 sets of Twins.

Both vertex occipito-anterior	4 sets.
Vertex occipito-anterior and a breech	2 sets.
Vertex occipito-anterior and vertex occipito posterior	1 set.
Vertex occipito-posterior and brow presentation	1 set.
Vertex occipito-anterior and face presentation	1 set.

Table showing the method of delivery of the 484 *babies born in the Department.*

Method of Delivery.	Number of Births.	Deaths.		
		Maternal.	Foetal.	Neo-natal.
Natural forces	454	1	12	19
Natural forces after induction	4	—	—	—
Forceps	8	1	2	2
Forceps after tubal induction	1	—	1	—
Version	2	—	1	—
Version to breech	3	1	1	—
Cæsarean section	2	—	—	—
Breech	10	—	4	1
Total	484	3	21	22

Tubal inductions	5
Delivered by midwives	460
Delivered by medical officers	15
Midwife sought medical assistance in	25

Labour—		Per cent.
Normal	452	95·2
Abnormal	14	2·9
Multiple	9	1·9
Total	475	100·0

Birth—		
Full-time	255	53·7
Premature	199	41·9
Stillborn	21	4·4
Total	475	100·0

Average weight at birth—ante-natal clinic infants	7 lbs. 2 ozs.
Average weight at birth—other infants	6 lbs. 11 ozs.
Infants not entirely breast fed	8.
Anæsthetics given for obstetric purposes	28.
Average length in days of lying-in period	12.

Obstetrical Operations.

Podalic and cephalic versions	7
Induction of labour	5
Manual removal of placenta	1
Retained placenta	3
Forceps delivery	9
Placenta prævia	2
Episiotomy	3

Maternal Morbidity.

All fatal cases and all cases in which a temperature of 100·4° F. or more is sustained for a period of 24 hours or recurs during that period. (Ministry of Health standard.)

——	Ante-natal clinic.	Non-ante-natal clinic.	Total.
Pyrexial cases	4	2	6
Deaths	2	1	3
Pyrexial cases and deaths	6	3	9
Morbidity per cent.	1·20	5·00	1·90

Pyrexial Cases.

Mode of Delivery.	Maternal Complications.	Number of cases.	
		Ante-Natal Clinic.	Non-Ante-Natal Clinic.
Forceps after induction	Nil	1	—
Natural forces	Nil	3	1
,, ,,	Placenta prævia	—	1

Total pyrexia cases 6

Maternal Deaths.

Mode of Delivery.	Maternal Complications.	Number of cases.	
		Ante-Natal Clinic.	Non-Ante-Natal Clinic.
Podalic version and breech	Placenta prævia	1	—
Natural forces	Manual removal of placenta, post partum hæmorrhage	1	
Forceps	Marginal placenta prævia	—	1

Total maternal deaths 3

Maternal mortality—all cases . . . . 0·6 per cent.

Infant mortality—		Per cent.
Infants—born and survived	441	91·1
Infants—stillborn	21	4·3
Infants—born and died	22	4·6
Total births	484	100

Infant mortality—

8·88 per cent. of all infants born.
4·75 per cent. of all infants born alive.

Stillbirths.

Details of the 21 Stillbirths.

Method of Delivery.	Maternal Complications.	Mother.		Infant.	
		Primapara.	Multipara.	Full Term.	Premature.
Natural Forces	Placenta prævia	—	3	3	—
	Toxæmia of pregnancy	—	2	—	2 M.
	,, ,,	1	—	1 M.	—
	Accidental hæmorrhage	—	2	2	—
	Obstructed labour	3	—	3	—
	,, ,,	—	2	2	—
	Prematurity	—	1	—	1
	Pressure of arm on trachea	1	—	1	—
	Toxæmia of pregnancy	—	1	—	1 M.
Forceps	Obstructed labour	1	—	1	—
	,, ,,	—	1	1	—
Forceps after induction	Toxæmia of pregnancy	1	—	—	1 M.
Podalic Version	Placenta prævia	1	—	—	1
Version	,, ,,	—	1	1	—
		8	13	15	6

M. denotes macerated fœtus.

*Neo-Natal Deaths.**

Details of the 22 Neo-natal Deaths.

No. of Infants.	Method of Delivery.	Maternal Complications.	Cause of Death.	Weight at Birth.		Age.
				lbs.	ozs.	
1	Natural forces	None	Prematurity	6	4	5½ days.
1	,, ,,	,,	,,	4	13½	2 days.
1	,, ,,	,,	Hydrocephalus spina bifida	8	9	18¾ hours.
1	,, ,,	Empyema	Prematurity	2	4	6½ hours.
1	,, ,,	None	,,	2	6	1½ days.
1	,, ,,	,,	,,	4	3	2 days.
1	,, ,,	,,	,,	5	2	7½ days.
1	,, ,,	,,	Atelectasis	5	8	6 days.
1	Forceps	,,	Pressure at birth	5	5	14 hours.
1	Natural forces	,,	Atelectasis	5	11	1 day.
1	,, ,,	,,	Prematurity	3	4½	6 hours.
1	,, ,,	Prolonged second stage	Congenital heart disease	10	9	4½ days.
1	Forceps	Eclampsia	Atelectasis	8	0	16 hours.
1	Natural forces	Impacted shoulders	White asphyxia	10	13	15 mins.
2	,, ,,	Hydramnios	Debility	3	8	1 day.
1	,, ,,	,,	,,	3	2	1 day.
1	,, ,,	None	Prematurity	4	8	3½ days.
1	,, ,,	Placenta prævia hydramnios	Anencephalus	2	10	3 mins.
1	,, ,,	Post partum hæmorrhage Retained placenta	Prematurity	3	14½	7 days.
1	,, ,,	None	,,	2	13	1 day.
1	,, ,,	,,	Atelectasis	7	0	3 days.
1	,, ,,	,,	Prematurity	4	14	8 hours.

* Deaths within 4 weeks of Birth.

Average weight at Birth .. .. .. 5 lbs. 3½ ozs.

Analysis of Cases of Normal and Abnormal Pregnancy, Parturition and Puerperium treated to a conclusion in Maternity and other Wards during the year.

	Deaths.	Total.
Pregnancy	—	33
Pregnancy and spurious labour pains	—	1
Toxæmia of pregnancy	—	2
Abnormal condition of gravid uterus and ovum	—	2
Ectopic gestation	—	9
Pregnancy, placenta prævia	—	1
Pregnancy, and concomitant disease	—	4
Abortion, threatened	—	13
,, complete	1	43
,, incomplete	—	72
,, with general peritonitis	—	1
Labour, normal	—	415
,, normal and toxæmia of pregnancy	—	4
,, normal and concomitant disease	—	16
,, abnormal	2	19
,, abnormal and toxæmia of pregnancy	—	1
,, abnormal and concomitant disease	—	3
,, multiple	1	8
Puerperium, normal	—	16
Retained products of conception	—	5
Total	4	668

Maternal Morbidity of Cases of Abortion.

Cases treated to a conclusion, 129.

Pyrexial cases	4
Deaths	1
Pyrexial cases and deaths..	5

Morbidity, 0·77 per cent.

7. Pathological Examinations.

Nature of Specimen.	Made at			
	Willesden General Hospital.	Willesden Municipal Hospital.	North Middlesex Hospital.	St. Mary's Hospital.
Swabs for diphtheria bacilli	—	374	—	—
Sputum for tubercle bacilli	2	478	2	—
Widal reaction	1	12	—	—
Cerebro-spinal fluid	159	2	14	—
,, ,, W.R.'s	114	—	14	—
Protein	102	—	14	—
Lange's colloidal gold curves	117	—	14	—
Sections	113	—	3	—
,, (post-mortem)	53	—	—	—
Fractional test meals	56	—	1	—
Glucose tolerance test	1	—	1	—
Urines	241	8	57	—
Urine ureas	38	—	12	—
Blood ureas	48	—	149	—
,, cultures	26	—	1	—
,, counts	4	—	138	—
,, sugar curves	—	—	21	—
,, sugar estimation	5	—	42	—
,, calcium	3	—	2	—
,, Van den Bergh	1	—	3	—
Peritoneal fluid	6	—	1	—
Pleural fluid	10	1	23	—
,, ,, guinea pig inoculations	3	—	11	—
Urine, guinea pig inoculations	—	—	2	—
Cerebro-spinal fluid, guinea pig inoculations	—	—	1	—
Ascitic fluid	—	—	8	—
Faeces for occult blood	3	—	182	—
,, pathogenic organisms	—	—	8	—
Pus examinations	57	9	12	—
Urethral films	—	2	22	—
Vaginal swabs, organisms	—	8	3	—
Wasserman reactions, blood	—	—	—	289
Zondek-Ascheim test	8	—	—	—
	1,171	894	761	289

Total investigations 3,115.

8. Casualty and Out-Patient Department.

——	Patients.	Attendances.
Medical and surgical	654	654
X-ray	191	191
Massage	48	663
Electrical	86	1,376
Totals	979	2,884
Ante-natal	511	1,672
Grand totals	1,490	4,556

9. Nurses Sick Room.

Number of nurses at 31st December	259
Nurses off sick during the year	84
Nursing days lost	684
Average number of days lost per sick nurse	8·1
Average number of days lost per nurse on staff	2·6

Disability—

Tonsillitis	24
Influenza	25
Otitis media	7
Measles	2
Appendicitis	2
Rheumatism	1
Miscellaneous	23
Total	84

10. Comparative Tables.

—	1931.	1932.	1933.
Beds—average daily number occupied	750	757	726
Admissions—average daily number	10	12	14
Births	220	341	463
Discharges	3,714	4,400	5,042
Operations—major	399	456	629
,, minor	730	847	938
Anæsthetics	920	1,015	1,299
Dental treatments	62	98	56
Radiological investigations	1,965	2,100	2,814
Massage treatments	6,175	8,337	7,668
Electro-therapeutic and sunlight treatments	419	506	5,748
Ante-natal clinic—women examined	136	391	511
,, attendances	468	894	1,672
Confinements	225	375	475
Mortality per cent. of women bearing live children	0	·03	0·4
Mortality per cent. of all infants born in hospital	·7	8·6	8·88
,, ,, of infants born alive in hospital	·3	2·5	4·75
Pathological investigations	633	1,749	3,115
Casualty and out-patient attendances	853	1,396	1,884

APPENDIX IV.

ANNUAL REPORT ON THE WORK OF THE WEST MIDDLESEX COUNTY HOSPITAL DURING 1933, PREPARED BY THE MEDICAL SUPERINTENDENT.

Staff.

(*As on* 31*st December,* 1933.)

Whole-Time Medical Staff.

Medical Superintendent—
J. B. Cook, M.D., Ch.B., D.P.H.

Deputy Medical Superintendent—
Miss M. W. Warren, M.R.C.S., L.R.C.P.

Assistant Medical Officers—
A. W. Badenoch, M.A., M.D.
M. M. Deane, M.D., M.R.C.P.
J. A. McLean, M.D., B.S., M.R.C.P.
G. Stephen, M.B., Ch.B.
Miss I. M. Titcomb, B.M., B.Ch.

Visiting Medical Staff.

Electro-therapist—
C. A. Robinson, B.A., M.B., B.Ch., D.M.R.E.

Radiologist—
D. G. Arthur, M.R.C.S., L.R.C.P.

Ophthalmic Surgeon—
F. W. Law, M.A., M.D., F.R.C.S.

Pathologist—
W. Broughton-Alcock, B.A., M.B., M.R.C.S., L.R.C.P.

Consulting Surgeon—
L. E. C. Norbury, O.B.E., M.B., B.S., F.R.C.S.

Consulting Physician—
R. Travers Smith, B.A., M.B., F.R.C.P.

Consulting Gynæcologist—
W. J. Bell, L.R.C.P., L.R.C.S. and L.M.

Consulting Aural Surgeon—
L. Colledge, M.B., B.Ch., F.R.C.S.

Nursing Staff.

Matron—
Miss E. Huggins.

Nurses—
183 Resident and 17 Non-Resident.

Classification of Accommodation and the Number of Beds occupied on 31st December, 1933.

—	Men.		Women.		Children.		Total.	
	Provided.	Occupied.	Provided.	Occupied.	Provided.	Occupied.	Provided.	Occupied.
Medical ..	108	104	133	127	—	—	241	231
Surgical ..	45	43	45	38	—	—	90	81
Children ..	—	—	—	—	119	106	119	106
Tuberculosis ..	16	10	17	14	—	—	33	24
Isolation ..	—	—	—	—	16	16	16	16
Maternity ..	—	—	31	29	—	—	31	29
Totals ..	169	157	226	208	135	122	530	487

Statistical Tables for the year ended 31st December, 1933.

Remaining in hospital on 1st January, 1933	472	
Admitted during the year	5,622	
Born in hospital	690	
		6,784
Discharged	5,494	
Died	797	
Remaining in hospital on 31st December, 1933	493	
		6,784

Highest number of patients, 572—on 4th February, 1933.

Lowest number of patients, 452—on 3rd September, 1933.

Daily average number during the year, 501.

I.—TABLE SHOWING HOW THE 6,312 CASES WERE ORIGINALLY ADMITTED.

By order of Relieving Officer	3,521
By Medical Superintendent	1,951
Births	690
Transfers from Middlesex County Council institutions or homes	150
Total..	6,312

II.—TABLE SHOWING THE DISTRICTS FROM WHICH THE 6,312 CASES WERE ADMITTED.

Acton	810	Sunbury	243
Brentford and Chiswick ..	1,065	Teddington	288
Ealing	1,319	Twickenham	709
Heston and Isleworth ..	1,636	Other districts of Middlesex..	242

Total .. .. .. 6,312.

III.—TABLE SHOWING WHITHER THE 6,291 PATIENTS WERE DISCHARGED.

Home	4,610
Middlesex County Council institutions or homes	387
Convalescent home	187
Other authorities' hospitals and institutions	16
Infectious diseases hospital	48
Sanatoria	88
Voluntary hospitals	10
Died	797
Duty (staff)	148
Total	6,291

DURATION OF STAY OF PATIENTS IN HOSPITAL.

Under four weeks	4,093, or	65	per cent.
4 weeks and under 13 weeks	1,634, or	26	,, ,,
13 weeks or more	564, or	9	,, ,,
	6,291	100	,, ,,

IV.—TABLE SHOWING AGE AND SEX DISTRIBUTION OF PATIENTS WHO DIED DURING THE YEAR.

Ages.	Male.	Female.	Total.
Under 1 year	35	24	59
1–5 years	12	10	22
5–10 ,,	2	8	10
10–15 ,,	4	2	6
15–20 ,,	10	14	24
20–30 ,,	30	31	61
30–40 ,,	26	44	70
40–50 ,,	50	47	97
50–60 ,,	60	42	102
60–70 ,,	80	62	142
70–80 ,,	74	61	135
Over 80 ,,	23	26	49
Total	406	371	797

Deaths within 24 hours of admission	106
,, 48 ,,	60
,, 72 ,,	46
All other deaths	585
Total	797

V.—CLASSIFICATION OF DISEASES AND CONDITIONS FOR WHICH THE 6,291 PATIENTS WERE PRIMARILY TREATED.

Disease or Condition.	Children (under 16).			Females.			Males.			Total.
	Relieved.	Unrelieved.	Died.	Relieved.	Unrelieved.	Died.	Relieved.	Unrelieved.	Died.	
Acute infectious diseases ..	98	—	2	23	—	3	46	1	2	175
Influenza	13	—	1	32	—	9	33	—	2	90
Tuberculosis—										
Pulmonary	3	—	1	69	1	46	73	1	33	227
Non-pulmonary	9	—	3	16	—	3	14	2	3	50
Malignant disease	—	—	1	26	—	74	70	1	51	223
Rheumatism—										
Acute	11	—	—	19	—	—	19	—	1	50
Non-articular	3	—	—	14	—	—	16	—	—	33
Chronic arthritis ..	—	—	—	29	—	—	35	—	—	64
Abortion and miscarriage	—	—	—	—	—	—	127	—	3	130
Other conditions of pregnancy	—	—	—	—	—	—	103	—	2	105
Diseases of the—										
Eye	10	—	—	10	—	—	24	—	—	44
Ear	53	—	—	16	—	—	24	—	—	93
Tonsils and/or adenoids	84	—	—	20	—	—	30	—	—	134
Nervous system	30	—	8	50	1	8	60	—	3	160
Circulatory system ..	8	—	7	81	1	106	97	—	72	372
Blood, spleen and lymphatics	—	—	—	6	—	3	14	—	4	27
Respiratory system ..	149	—	31	178	1	65	137	—	41	602
Teeth and gums	6	—	—	13	—	—	15	—	—	34
Digestive system ..	167	—	20	292	—	30	213	—	25	747
Nutrition and metabolism	61	—	44	24	—	—	72	—	1	202
Diseases of the generative system	4	—	—	8	—	1	110	—	—	123
Diseases of the organs of locomotion	8	—	—	20	—	—	13	—	—	41
Diseases of the skin and areolar tissue	154	—	1	140	—	1	98	—	—	394
Diseases of the urinary system	26	—	—	85	—	33	63	—	16	223
Malformation and cysts ..	2	—	1	6	—	1	9	—	—	19
Injuries	91	1	3	237	—	12	100	1	13	458
Poisonings	—	—	—	—	1	1	—	—	—	2
Mental diseases	—	1	—	1	5	—	—	10	—	17
Venereal diseases	—	—	—	3	2	—	3	—	—	8
Puerperal pyrexia	—	—	—	—	—	—	23	1	—	24
,, fever	—	—	—	—	—	—	5	—	6	11
Infants with mothers ..	58	—	—	—	—	—	—	—	—	58
No disease	6	—	—	2	—	—	4	—	—	12
Mothers and infants discharged from maternity wards and not included in above figures	650	—	—	—	—	—	689	—	—	1,339
Totals	1,704	2	123	1,420	12	396	2,339	17	278	6,291
Grand Totals ..	1,829			1,828			2,634			

1. Department of Surgery.

Analysis of Operations Performed in the Theatre during 1933.

Operations.	Major.	Minor.	Totals.
On skin and superficial structures (including toilet of wounds, incision and draining of abscesses, skin grafts, &c.	1	191	192
On bones, joints and tendons—			
Reduction of fractures by manipulation	8	154	162
Reduction of fractures by open operation	7	3	10
Reduction of dislocation	6	—	6
For osteomyelitis..	4	5	9
Amputations	26	2	28
Miscellaneous	6	1	7
On head and neck—			
Trephine of skull	1	—	1
Partial thyroidectomy	4	—	4
Dissection of glands of neck	4	—	4
Tracheotomy	2	—	2
On Eye—			
Enucleation	2	1	3
Extraction of lens/needling	6	5	11
On Ear, Nose and Throat—			
Mastoidectomy	37	—	37
Removal of tonsils and adenoids	91	17	108
On Abdominal Walls and Cavity—			
Herniotomy for inguinal/femoral hernia	63	—	63
Herniotomy for ventral/umbilical hernia	7	—	7
Laparotomy, exploratory, or for adhesiolysis, peritonitis, &c.	47	—	47
On Stomach and Duodenum—	3	—	3
Partial gastrectomy	3	—	3
Suture of perforated ulcer	25	—	25
Gastrostomy	3	—	3
Gastroenterostomy	2	—	2
Rammstedt's operation	2	—	2
On Intestine, Biliary Passages, Rectum and Anus—			
Appendicectomy without drainage	107	—	107
Appendicectomy with drainage..	104	—	104
Drainage of appendix abscess	5	—	5
Resection and/or anastomosis of small intestine or colon	8	—	8
Enterostomy/caecostomy/colostomy	23	—	23
Sigmoidoscopy	—	32	32
Cholecystectomy/cholecystostomy	16	—	16
Miscellaneous	2	17	19
On Spleen—			
Splenectomy	1	—	1
On Urinary Tract—			
Nephrectomy	5	—	5
Nephrotomy/pyelotomy/ureterotomy	7	—	7
Prostatectomy	1	—	1
Cystotomy..	7	—	7
Cystoscopy	—	58	58
Pyelography	—	—	—
On Male Generative Organs—			
Miscellaneous	6	28	34

Operations.	Major.	Minor.	Total.
On Female Generative Organs—			
Pan hysterectomy	1	—	1
Total hysterectomy	5	—	5
Vaginal hysterectomy	1	—	1
Salpingectomy/oöphorectomy	21	—	21
Curettage/evacuation of uterus	67	6	73
Ventro-suspension	3	—	3
Colporrhaphy/perineorrhaphy	4	—	4
Miscellaneous	2	2	4
On Breast—			
Removal of tumour	4	—	4
Incision and drainage of abscess	—	19	19
Miscellaneous	26	5	31
Totals	786	546	1,332

In addition to the above the theatre was used for minor operative procedures (*e.g.* dental extractions, intra-uterine injection of glycerine, &c.) on 605 occasions.

Analysis of Fractures and Dislocations treated to a Conclusion during the Year, their Nature, together with the Results of Treatment.

Bone or Joint.	Result of Treatment.							
	Simple.				Compound.			
	Good.	Fair.	Poor.	Died.	Good.	Fair.	Poor.	Died.
Skull—vault	3	—	—	—	—	—	—	—
Skull—base	7	1	—	—	—	—	—	—
Skull—bones of face	3	1	—	—	—	—	—	—
Concussion	43	2	—	2	—	—	—	—
Vertebræ	2	2	—	—	—	—	—	—
Ribs	7	1	—	—	—	—	—	—
Clavicle	2	—	—	—	—	—	—	—
Scapula	2	—	—	—	—	—	—	—
Humerus	14	3	—	1	—	1	1	—
Radius, ulna, or both	10	3	1	—	1	—	—	—
Carpus, metacarpus or phalanges	1	—	—	—	—	—	—	—
Pelvis	1	1	—	1	—	—	—	—
Femur, neck or great trochanter	7	6	1	5	—	—	—	—
Femur, shaft or lower end	14	5	2	—	—	—	—	—
Patella	2	1	—	—	—	—	—	—
Tibia	8	1	—	—	2	—	—	—
Fibula	5	—	—	1	—	—	—	—
Tibia and fibula	30	6	1	—	6	1	1	—
Tarsus, metatarsus or phalanges	3	—	—	—	—	—	—	—
Multiple bony injuries	19	4	1	1	3	2	—	1
Dislocations, various	6	3	—	—	—	—	—	—
Sternum	1	—	—	—	—	—	—	—
	190	40	6	11	12	4	2	1

Total .. 266

2. Department of Anæsthetics.

Analysis of Anæsthetics administered during the year.

Ether and chloroform	634
Gas and oxygen	191
Ether and oxygen	12
Ethyl chloride and ether	184
Ether gas and oxygen	13
Chloroform ether and oxygen	15
Local	93
Spinal	7
Gas	184
Total	1,333

3. Department of Radiology.

Number of patients—

In-patients	1,929
Out-patients	266
Total	2,195

Number of radiograms—

In-patients	4,463
Out-patients	354
Total	4,817

Number of treatments—

In-patients	193
Out-patients	95
Total	288

Analysis of investigations made during the year 1933.

—	Appearances.		
	Normal.	Abnormal.	Total.
Skull and contents	74	44	118
Lungs and mediastinum	75	395	470
Pleura and pleural conditions	6	75	81
Heart and aorta	3	19	22
Lipiodol injections	5	24	29
Barium meal	29	132	161
Barium enema	20	29	49
Biliary tract—			
(*a*) With shadocol	9	12	21
(*b*) Without shadocol	9	15	24
Urinary system	69	47	116
Pyelograms	21	49	70
Bones and joints—			
(*a*) For disease	86	243	329
(*b*) For deformity	147	507	654
Generative system	15	10	25
Foreign bodies	5	6	11
Teeth	2	13	15
Total	575	1,620	2,195

4. Electrical Department.

Number of patients treated	952
Number of attendances	16,124
Number of treatments	23,623

Analysis of Treatments.

Diathermy	3,265
Galvanism	2,954
Faradism	290
Sinusoidal alternating current	992
Radiant heat	2,091
Ultra-violet light	8,128
Examinations	2,291
Dressings	3,012
Total	23,023

Diathermy in the Treatment of Puerperal Sepsis.

During the years 1921–1924 there were 48 cases of puerperal sepsis admitted to this hospital, and of these 21 died. Practically every form of recognised treatment was tried with very disappointing results, and finally towards the end of 1926 Dr. Robinson and I decided to try the effect of intra-pelvic diathermy for this condition, and the first case was treated on the 17th December, 1926. The patient had been ill for 12 days, she had pyæmic abscesses and her condition was grave. She responded to the treatment and completely recovered.

During the next three years we had 60 cases, and of these 35 were treated by the usual routine methods only, while 25 had diathermy in addition to the usual routine. Of the 35 cases not treated by diathermy 17 were not seriously ill, and 3 had other complications which made death inevitable apart from puerperal sepsis. There are thus 20 cases which need not be further considered, leaving 15 cases which are comparable with the 25 cases treated by diathermy. The results are best shown in Table A.

Table A.

Stage of illness on admission to Hospital.	Number of Cases treated without Diathermy.		Number of Cases treated with Diathermy.	
	Cases.	Deaths.	Cases.	Deaths.
Up to 7 days	6	0	3	1
7 to 14 days	5	5	10	1
Over 14 days	4	3	12	1
Total	15	8	25	3

From this it will be seen that of the 15 cases not treated by diathermy, 8 died, while of the 25 cases treated with diathermy only 3 died. We now use diathermy as a routine for puerperal sepsis, and Table B gives the results of the first 100 cases so treated.

Table B.

Stage of Illness on admission to Hospital.	Result of 100 Cases treated with Diathermy.	
	Cases.	Deaths.
Up to 7 days	49	12
7 to 14 days	26	4
Over 14 days	25	1
Total	100	17

In a majority of cases the effects of the application of diathermy are striking, and sometimes almost immediate. The temperature falls, the patient feels better, her general condition improves, and convalescence is usually accelerated, while the proportion of deaths to cases—17 in 100—compares favourably with the 21 deaths in 48 cases before diathermy was used.

The application of diathermy for this condition is absolutely pioneer work, and has not been done before. The greatest credit is due to Dr. Robinson for the thorough and painstaking manner in which he has conducted the investigation, and he is to be heartily congratulated upon the result of his eight years' work.

5. Massage Department.

PATIENTS.

	Medical.	Surgical.	Total.
West Middlesex County Hospital	170	279	449
Warkworth House	27	14	41
Out-patients	75	114	189
Total	172	407	679

TREATMENTS.

	Medical.	Surgical.	Total.
West Middlesex County Hospital	3,997	6,416	10,413
Warkworth House	862	242	1,104
Out-patients	1,223	2,116	3,339
Total	6,082	8,774	14,856

6. Queen Mary Maternity Wing.

Ante-natal clinic.

Number of sessions	260
Number of patients	771
Number of attendances	3,957
Average number of attendances per session	15·2
Average number of attendances per expectant mother	5·1

Admissions.

	Cases.	Per cent.
Via ante-natal clinic	631	84·5
Not via ante-natal clinic	116	15·5
Total	747	100
Civil state—		
Married	691	92·5
Unmarried	56	7·5
	747	100
Parous state—		
Primiparæ	357	47·8
Multiparæ	390	52·2
	747	100

Presentation.

Vertex	670
Face	1
Breech	54
Transverse	1
Born before arrival	16
	742

The above figure includes 12 pairs of twins, 1 set of triplets and 7 deliveries by Caesarean Section.

Table showing the method of delivery of the babies born in the department.

Method of Delivery.	No.	Deaths.		
		Maternal.	Fœtal.	Neo-natal.
Natural forces	652	3	31	7
Natural forces after induction	52	1	4	—
Forceps	17	2	5	2
Forceps after induction	1	—	—	—
Version	13	1	13	5
Cæsarean section	7	—	—	1
Total	742	7	53	15

Medicinal inductions	36
Surgical inductions	17

	Cases.
Delivered by midwives	676
Delivered by doctors	50
Midwife sought medical assistance in	147
Born before admission	16
Anæsthetics given for obstetrical purposes	68

Labour.		Per cent.
Normal	660	90·7
Abnormal	55	7·5
Multiple	13	1·8
Total	728	100

Birth.		Per cent.
Full time	564	75·9
Premature	125	17·0
Still-born	53	7·1
Total	742	100

Average weight at birth—	
Ante-natal clinic infants	6 lbs. 14 ozs.
Non-ante-natal clinic infants	6 lbs. 1 oz.
Infants not entirely breast fed	35
Average duration of stay in hospital	14 days

MATERNAL DEATHS.

Cause.	Ante-natal Clinic.	Non-ante-Natal Clinic.
Albuminuria and persistent vomiting	—	1
Obstructed labour—perforation and decapitation	—	1
Eclampsia (premature labour)	—	1
Eclampsia—perforation, forceps delivery	—	1
Pelvic cellulitis. Puerperal fever—lacerations	1	—
Tetanus—placenta prævia with profuse hæmorrhage. Version	—	1
Puerperal fever. (Twins—lacerations)	—	1
Totals	1	6

Neo-Natal Deaths.

No. of infants.	Nature of delivery.	Maternal complications.	Cause of death.	Age.
7	Normal	—	Spina bifida	4 days.
	,,	—	Prematurity	12 hours.
	,,	—	Imperforate anus	7 days.
	,,	Albuminuria	Prematurity	4½ hours.
	,,	Precipitate labour	,,	14 hours.
	,,	—	Convulsions	8 days.
	,,	Toxæmia	Prematurity	2 days.
5	Breech (Versions)	Placenta Prævia	,,	10½ hours.
	,,	,,	,,	1 hour.
	,,	,,	,,	2 hours.
	,,	,,	,,	11½ hours.
	,,	,,	,,	1½ hours.
1	Cæsarean Section	,,	,,	2 days.
2	Forceps	Eclampsia	Convulsions	7 hours.
	,,	Twins	Prematurity	5 mins.

Still-births.

Details of 53 *Still-births*

Number of Infants.	Nature of Delivery.	Causation.	Full Term.	Premature.
31	Normal	Eclampsia	—	4
	,,	Accidental hæmorrhage (albuminuria)	3	1
	,,	Pre-eclampsia	1	1
	,,	Post-maturity	6	—
	,,	Prolapsed cord	2	1
	,,	Prematurity	—	3
	,,	Albuminuria (macerated)	—	1
	,,	Hydrocephalic twin (macerated)	1	—
	,,	Macerated	2	1
	,,	Nil found	1	3
4	Normal after induction	Toxæmia. Vomiting and albuminuria	—	1
	,, ,,	Post-maturity	1	—
	,, ,,	Hydrocephalus—spina bifida, &c.	1	—
	,, ,,	Pyelitis	—	1
13	Breech	Eclampsia (after version)	—	1
	,,	Placenta prævia	1	3
	,,	Extended breech—prolapsed cord	1	—
	,,	—	1	2
	,,	Premature—spina bifida	—	1
	,,	Head extended—cord three times round neck	1	—
	,,	Hydrocephalus, &c.	2	—
5	Forceps	Post-maturity	1	—
	,,	Twin—prolapsed cord	—	1
	,,	Eclampsia	1	—
	,,	Destruction of Siamese twins	1	—
	,,	Post-maturity—craniotomy	1	—

Analysis of 33 Cases of Pyrexia in the Puerperium.

Cause or Associated Condition.	Ante-natal Clinic.	Non-ante-natal Clinic.
Retained placenta and post partum haemorrhage	1	1
Eclampsia (stillbirth)	—	1
Caesarean section (disproportion)	—	1
Sapraemia—retained products	5	—
Retained placenta—manual removal	1	—
Vaginal lacerations	3	—
Vaginal discharge	1	—
Post-maturity	—	2
Forceps and destruction of Siamese twins	—	1
Forceps—obstructed labour	—	3
Extended breech	—	1
Pyelitis	4	—
Influenza	3	1
Asthma	1	—
Mumps	1	—
Phlebitis	1	—
Unexplained	1	—

APPENDIX V.

ANNUAL REPORT ON THE WORK OF HILLINGDON COUNTY HOSPITAL DURING 1933, PREPARED BY THE MEDICAL SUPERINTENDENT.

Until the end of 1930 the clinical activities at Hillingdon were somewhat circumscribed owing to the fact that facilities were provided for a limited and fairly stationary population.

In the three years following, the work had so enormously increased as to demand a full-time medical staff of four, where previously one part-time medical officer had been employed, fully warranting the far-sighted policy of the County Council in providing this much needed public health service for the rapidly increasing numbers of settlers in the district.

A glance at the following comparative table will help the reader to form a picture of the Hospital's vigorous progress and to understand the Ministry's decision to include this institution in the category of general hospitals :—

	1931.	1932.	1933.
Number of discharges	1,208	1,990	2,657
Mortality, per cent.	9·2	7·0	7·6
Confinements	65	160	189
Out-patients	788	1,959	2,550
Out-patient attendances	1,307	6,113	12,864
Surgical operations (excluding dental extractions) ..	967	1,825	2,126
Patients per occupied bed	17	21	24

Progress in nursing staff organisation has proceeded on parallel lines under the keen organising control of the Matron, so that from an auxiliary training school we have advanced to recognition by the General Nursing Council as a complete training school for nurses. In the current year three nurses entered for and passed the Final State Examination. This in itself speaks adequately for the practical training received and the excellence of the teaching given by the tutor, and is reflected in the high efficiency with which all nursing duties are discharged.

Assistant nurses are being gradually replaced by probationers whose physique and educational attainments are very satisfactory.

Improvements and alterations to buildings are constantly being made to suit existing demands and we are now in the position of possessing a departmental block which houses :—

Administrative offices.
X-ray department.
Physical treatment department.
Pharmaceutical department.
Pathology and bio-chemistry department.

In the near future a building is being converted to serve as an out-patient department with its auxiliary clinics.

An emergency lighting set has been installed in the theatre.

An extension to the nurses' home in process of erection will house 76 nursing staff, and will reduce the cost of outside sleeping quarters.

Pathology and Bio-Chemistry.

Under the direction of Dr. J. H. Follows, ably assisted by Mr. D. F. B. Pritchard, the activities of this department are keeping well in line with the modern demands for scientific investigation of disease ; the supply of scientific instruments and apparatus has not been lacking, and a recent acquisition worthy of note is a colorimeter which simplifies the examination of body fluids to determine their chemical content.

Radiology.

Some material economies in film expenditure have been effected, the outstanding example being in the case of barium meal examinations where screening is now largely resorted to ; the operator gains a better understanding of the conditions present, and at least four films per investigation are saved.

The screening apparatus has been in use about one month, and was entirely improvised with existing apparatus by the radiographer with the help of the hospital carpenter.

Staff.

The services of our fourth medical officer were acquired this year in the person of Miss Joyce Morgan, M.D. (London).

Other staff changes are the resignation of Mr. R. G. Macbeth, F.R.C.S. (Edin.), to take up consultant work at the Radcliffe Infirmary, Oxford. His place is filled by Mr. L. Fatti, F.R.C.S.

Two academic successes are to be noted during this current year, viz. :—

Mr. R. G. Macbeth elected F.R.C.S., Edinburgh.
Dr. J. H. Follows elected M.R.C.P., London.

An increase in the surgical work is again to be noted and is mainly in the direction of major surgical procedures—over 200 more major operations being done.

Out-Patients.—The out-patient department deals with a large amount of clinical material, and is largely instrumental in relieving pressure on bed accommodation. Under this heading are included :—

- Casualty and out-patient dressings.
- Ante-natal clinic.
- Physical treatment clinic.
- Orthopædic clinic.
- Urological clinic.
- Vein injection clinic :—
  - (*a*) For varicose veins.
  - (*b*) For hæmorrhoids.
- Ear, nose and throat clinic.
- Medical out-patients.

Casualty and Out-Patient Dressings.

The existence of the above department enables the staff to effect immediate treatment for minor injuries and to continue surgical dressings that have previously been done in the wards or following the routine of minor operations on those patients not admitted.

Ante-Natal Clinic.

Expectant mothers are being very regularly referred to this hospital for supervision, and in the course of routine examination a certain proportion are put on the books for admission when either a normal delivery is not expected or the mother's home conditions preclude a domiciliary confinement. This clinic is held each Friday at 9.30 a.m., under the direction of Dr. Joyce Morgan.

Physical Treatment Department.

As occasion has demanded, various types of plant have been acquired to aid in the restoration of diminished or lost function. Various up-to-date types of physio-therapeutic treatment are in daily application by one whole-time masseuse and one part-time blind masseur under the direction of the medical and surgical staff.

Orthopædic Clinic.

Here all ambulatory fractures are seen and the clinic is held each Friday at 1.30 p.m. The introduction of the Delbet technique by Mr. L. Fatti, has lessened the convalescent period of those suffering from fractures about the ankle joint by at least three weeks, *i.e.*, as soon as the plaster is removed the patient has almost full movement of the ankle joint and can resume full work immediately, there being usually no need to attend the massage department for re-education of joints and muscles.

Urological Clinic.

Many investigations and treatments are carried out in order to diminish the number of days a patient spends in hospital, *e.g.* :—

- Cystoscopic examinations.
- Catheterisation of ureters.
- Pyelographies.
- Tests of renal function.
- Follow-up of prostatectomised patients.
- Dilatations of strictures.
- Tuberculin medication following operations for genito-urinary tuberculosis.

Ear, Nose and Throat Clinic.

In this department, amongst other activities, a serious attempt is being made to grapple with the problem of the discharging ear. These special out-patient sessions which were inaugurated this year are held weekly on Wednesdays at 1.30 p.m.

Medical Out-Patients.

Many patients are investigated in this department before admission, particularly those suffering from gastro-intestinal symptoms who require a thorough bio-chemical and radiological investigation. The follow-up and/or treatment of diabetics and those suffering from the effects of specific diseases is also an important feature.

In concluding this survey of the development of the hospital, I wish to thank the Committee for their invaluable help throughout the year and to Dr. Tate for suggesting ways and means of development, particularly departmental development. I am also deeply indebted to my colleagues who are helping to lay the foundations of this valuable service.

Staff.

WHOLE-TIME MEDICAL STAFF.

Medical Superintendent—

R. Rutherford, F.R.C.S.

Assistant Medical Officers—

J. H. Follows, M.D., M.R.C.P.
Miss J. Morgan, M.D., B.S., B.Sc.
L. Fatti, M.B., B.S., F.R.C.S.

NURSING STAFF—70

Matron—Miss E. S. Laing.

Administrative Sisters	4	Nurses & probationers	56
Departmental Sisters	2	Massage Sister	1
Ward Sisters	6		

OTHER STAFF.

Chaplain	Rev. W. G. Prior
Steward	Mr. A. Scrivens.
Pharmacist	Mr. D. F. B. Pritchard, B.Sc., M.P.S.
Radiographer	Mr. C. Butler, M.S.R.

Beds.

Male—Medical	17	
,, —Surgical	32	
	—	49
Female—Medical	17	
,, —Surgical	32	
	—	49
Children		8
Isolation		8
Maternity		12
Total		126

Statistical Tables for the Year ended 31st December, 1933.

Remaining in Hospital, 1st January 1933	106	
Admitted	2,450	
Born in Hospital	189	
		2,745
Discharged	2,456	
Died	201	
Patients treated to a conclusion during the year		2,657
Remaining in Hospital on 31st December 1933		88

Children under 16 years of age constituted 38.4 per cent. of all patients treated.

I. TABLE SHOWING HOW THE 2,639 PATIENTS WERE ADMITTED.

1. By Medical Superintendent	1,281
2. By Relieving officer	1,059
3. Births	189
4. By police (other than accident)	18
5. Police (accidents)	92
Total	2,639

II. TABLE SHOWING THE DISTRICTS TO WHICH THE 2,639 PATIENTS BELONG.

Uxbridge	1,027
Yiewsley and West Drayton	275
Ruislip-Northwood	64
Southall-Norwood	681
Hayes and Harlington	538
Other districts	54
Total	2,639

III. TABLE SHOWING WHITHER THE 2,657 PATIENTS WERE DISCHARGED.

To own, relatives' or friends' home	2,180
House section, Hillingdon	15
Children's home	3
Other Poor Law institution	22
Convalescent home	27
Fever hospital	5
Non-Poor Law hospital	4
Sanatoria	19
Nursing home	2
Casual ward	20
Duty (applies to Nursing Staff)	42
Prison, or in custody	2
Transfers from Hospital to Infirmary	115
Died	201
Total	2,657

IV. DEATHS.

		Per cent.
Deaths within 12 hours of admission	31	15
Deaths within 24 hours of admission	18	9
Deaths within 48 hours of admission	15	7
Deaths within 72 hours of admission	7	4
All other deaths	130	65
Total deaths	201	100

Approximately one quarter of all deaths occurred within 24 hours of admission.

V. AVERAGES FOR THE YEAR.

Beds—average number occupied daily	110.2
Patients per occupied bed, average number	24.1
Nursing staff, daily average strength	59
Occupied beds per nurse, average number	1.9
Admissions, average daily number	7.2
Stay, average length in days per patient	15.1

Maximum number of beds occupied—155 on the 27th January 1933

Minimum number of beds occupied — 80 on the 29th December 1933

Number of road accidents admitted during 1933	105

VI. CLASSIFICATION OF IN-PATIENTS WHO WERE DISCHARGED FROM OR WHO DIED IN HOSPITAL DURING THE YEAR.

Disease or Condition.	Children (under 16 years of age).		Adults.	
	Discharged.	Died.	Discharged.	Died.
Acute infectious disease	45	1	7	2
Influenza	1	—	34	3
Tuberculosis—				
Pulmonary	—	—	37	14
Non-pulmonary	5	1	7	4
Malignant disease	—	—	21	19
Rheumatism—				
(1) Acute rheumatism (rheumatic fever), together with sub-acute rheumatism and chorea	11	—	3	1
(2) Non-articular manifestations of so-called "rheumatism" (muscular rheumatism, fibrositis, lumbago and sciatica)	—	—	8	—
(3) Chronic arthritis	—	—	3	—
Venereal disease	—	1	7	—
Other diseases and accidents connected with pregnancy and childbirth	1	—	149	12
Mental diseases—				
(*a*) Senile dementia	—	—	1	—
(*b*) Other	2	—	3	—
Senile decay	—	—	1	—
Accidental injury and violence	94	3	259	23
Disease of the nervous system and sense organs	9	4	26	3
,, respiratory system	57	9	87	24
,, circulatory system	3	1	43	16
,, digestive system	384	8	322	17
,, genito-urinary system ..	23	1	140	17
,, skin	23	—	18	—
Other diseases	127	9	146	3
Mothers and infants discharged from maternity ward and not included in above figures	193	5	156	—
Totals	978	43	1,478	158

Diseases and Conditions Treated to a Conclusion.

(Groups Arranged in Order of Frequency.)

Diseases of the digestive system	731
Accidental injury and violence	379
Mothers and infants discharged	354
Diseases of the genito-urinary system	181
Diseases of the respiratory system	177
Diseases and accidents connected with pregnancy and childbirth ..	162
Diseases of the circulatory system	63
Infectious diseases	55
Pulmonary tuberculosis..	51
Diseases of the nervous system	42
Diseases of the skin	41
Malignant diseases	40
Influenza	38
Other diseases	343
Total	2,657

VII. THE WORK OF THE SPECIAL DEPARTMENTS.

1. Surgical	Major operations	730
	Minor operations	1,396
2. Anæsthetics	General	1,417
	Regional	166
	Local	341
3. Dental	Treatments	148
4. Radiological	Patients investigated	1,042
	Investigations	1,547
5. Massage and Electrical	Treatments	6,617
6. Maternity	Women examined at ante-natal clinic and admitted for confinement	169
	Attendances at ante-natal clinic of women admitted for confinement	700
	Births	201
	Obstetric operations	75
7. Pathological investigations	At Hillingdon County Hospital	1,362
	At North Middlesex County Hospital	442
	At King's College Hospital	383
8. Casualty and Out-Patients	Total patients	2,550 (including casuals)
	Attendances	12,864 (,,)
	Minor operations (excluding lumbar punctures and dental extractions)	472
9. Nurses' Sick Room	Admissions	42

Department of Surgery.

Analysis of Operations performed during the year.

Operation.	Major.	Minor.
General—		
On skin and superficial structures	16	384
On arteries, veins and lymphatics	3	123
On nerves	3	—
On bones and joints	34	101
On muscles, tendons, bursæ and fasciæ	—	6
Amputations	13	—
On skull, brain and spine	2	1
On eye	—	11
On mouth, pharynx and œsophagus	1	11
On ear, nose and throat	180	367
On thyroid, accessory glands and neck	8	—
On breast	4	10
On thorax and contents	7	77
On abdominal wall and cavity	98	8
On stomach and duodenum	16	—
On intestine, rectum and anus	161	24
On liver, gall bladder, pancreas and spleen	13	—
On kidney and urinary tract	11	155
On male generative organs	28	36
Obstetric	7	68
On female generative organs	125	14
Grand Totals	730	1,396

Of the above minor operations, 419 were performed in the Out-Patient Department.

No. of operations on in-patients	1,622
No. of operations on out-patients	504

Operative Mortality Rates—

Per 100 major operations	6·4
Per 100 major and minor operations	2·1

Below are given, under anatomical headings, the names and numbers of the operations most frequently performed.

On Skin and Superficial Structures (400).

Toilet and suturing of wound	123
Toilet and tannic acid treatment of burn and scald	5
Incision for abscess, cellulitis, boil or carbuncle	217
Removal of foreign body	17
Excision of tumour	33
Skin graft	5

On Nerves (3).

Included in this group is one operation of bilateral ganglionectomy for Raynaud's disease.

On Bones and Joints (135).

The majority of operations in this section were carried out for the treatment of fractures (73). Three operations for autogenous bone graft were performed.

On Abdominal Wall and Cavity (106).

Herniotomy for inguinal and femoral herniæ (7 strangulated)	63
Herniotomy for ventral and umbilical herniæ (1 strangulated)	8
Laparotomy—exploratory for adhesiolysis, peritonitis, abscess, &c.	35

On Stomach, Duodenum, Intestine, Rectum, Anus, Gall Bladder (214).

For peptic ulcer (10 perforated)	15
Enterostomy/colostomy, with/without resection, &c.	30
Appendicectomy	118
Drainage of appendix abscess without appendicectomy	3
Proctoscopy, sigmoidoscopy	15
For ischio-rectal and anal abscess	7
Cholecystotomy, cholecystectomy	13

On Kidney, Ureter, Bladder and Urethra (166).

Cystoscopy	19
Cystoscopy, and ureteric catheterisation	27
Suprapubic cystotomy	9
Nephrectomy, nephrotomy	2

On Male Generative Organs (64).

Suprapubic prostatectomy	12
Circumcision	34

On Female Generative Organs (139).

On ovary and/or tube	12
For ectopic gestation	5
Uterine curettage	26
Curettage for abortion	62
Hysterectomy	7
Vaginal plastic operation	3

Emergency Surgery.

Of the major operations performed in the hospital during the year, and included in the above figures, 41·3 per cent. may be classified as surgical emergencies.

Details of these are as follows :—

Acute abdominal—

Appendicectomy	94	
Perforated peptic ulcer	10	
Cholecystectomy	3	
Strangulated herniæ	9	
For intestinal obstruction	12	
Appendix abscess drainage	2	
General peritonitis	4	
For intussusception	2	
	—	136

Others—		
Gynæcological	72	
Obstetric	7	
Blood vessels	1	
Orthopædic	24	
Ear, nose and throat	49	
Bronchoscopy	1	
Oesophagoscopy	4	
Genito-urinary	8	
		166
Total		703

Department of Anæsthetics.

General anæsthesia—		
Chloroform, ether, etc.	625	
Nitrous oxide, oxygen and ether	408	
Nitrous oxide and oxygen	339	
Avertin	6	
Evipan	39	
		1,417
Spinal anæsthesia		164
Sacral injection		2
Local anæsthesia—		
Infiltration and nerve block	268	
Mucous membrane application	62	
Ethyl chloride spray	11	
		341
Total		1,924

Department of Radiology.

Analysis of Radiological Investigations.

Skull	121
Chest	214
Alimentary tract	140
Biliary system	24
Renal tracts	100
Generative system	18
Bones (for injuries)	708
Bones (for disease)	237
Dental	15
Miscellaneous	19
Total	1,596

Special Methods of Investigation.

Chest Lipiodol	5
Barium meals	79
Barium enemas	30
Barium swallows	5
Biliary system, with dye	18
Intravenous injection (Uroselectan B)	40
Ascending injection (sod. bromide)	15
Lipiodol injection	1
Total	193

In-patient investigations	941
Out-patient ,,	554
Staff ,,	24
House-patient ,,	7
Casuals investigated	21
Total	1,547

In-patients radiographed	601
Out-patients ,,	393
Staff ,,	20
House-patients ,,	7
Casuals ,,	21
Total	1,042

Physical Treatment Department.

	Total Patients.	Massage.	Electrical Treatments.	Ultra-Violet Ray.	Total Treatments.
Out-patients	115	2,177	439	640	3,256
In-patients	308	2,427	366	568	3,361

Maternity Department.

Ante-Natal Clinic.

Ante-natal sessions held	52
Expectant mothers examined	169
Total attendances	700
Average number seen per session	13·5

Analysis of the 197 *deliveries which took place during the year.*

		No.	Per cent.
Mother admitted	*Via* ante-natal clinic	161	81·7
	Not *via* ante-natal clinic	36	18·3
Civil state	Married	178	90·4
	Unmarried	19	9·6
Parous state	Primipara	96	48·7
	Multipara	101	51·3
Presentation	Normal	182	92·4
	Abnormal	15	7·6

There were two sets of twins and one of triplets.

Method of Delivery.	No. of Births.	Deaths.		
		Maternal.	Foetal.	Neo-natal.
Natural forces	170	6	9	4
Natural forces after induction	9	—	—	—
Forceps	15	1	1	—
Cæsarean section	7	1	2	—

Delivered by midwives	173 cases
Delivered by medical officers	24 cases

		No.	Per cent.
Labour	Normal	164	83·2
	Abnormal	33	16·8
Birth	Full time	159	79·1
	Premature	30	14·9
	Stillborn	12	6·0

Infants not entirely breast fed	18
Average length of lying-in period in days	14

Obstetric operations (75).

Surgical induction of labour	22
Rupture of membranes	2
Application of forceps	14
Cæsarean section	5
Hysterotomy	1
For adherent placenta	2
Vaginal plugging for ante-partum hæmorrhage	2
Episiotomy	2
Repair of ruptured perineum	25

Maternal Morbidity.

—	Ante-natal Clinic.	Non-ante-natal Clinic.	Total.
Deliveries	161	36	197
Pyrexial cases	12	5	17
Deaths	2	7	9

Analysis of the 17 *Pyrexial cases.*

Mode of Delivery.	Causation.	Number of Cases.	
		Ante-natal Clinic.	Non-ante-natal Clinic.
Natural forces	Sapræmia	3	1
„ „	Pyelitis	—	1
„ „	Phlebitis	2	1
„ „	Pneumonia	1	1
„ „	Acute arthritis	1	—
Forceps	Sapræmia	1	—
„	Phlebitis	1	—
„	Appendicitis	1	—
Operation	Sapræmia	1	1
„	Cellulitis	1	—
		12	5

Maternal Deaths.

Mode of Delivery.	Maternal complications.	Number of Cases.	
		Ante-natal Clinic.	Non-ante-natal Clinic.
Natural forces (Delivered before admission)	Septicæmia (Admitted as such)	—	2
Natural forces	Placenta prævia	—	1
,, ,,	Accidental hæmorrhage	—	1
,, ,,	Eclampsia	—	2
,, ,,	Influenzal pneumonia	1	—
Forceps delivery	Septicæmia	—	1
Cæsarean section	Heart failure	1	—
		2	7

Total maternal deaths	9	
Maternal mortality	4·5 per cent.	
	No.	*Per cent.*
Infants born and survived	185	92·0
Infants stillborn	12	6·0
Infants born and died	4	2·0

Infant mortality.—8·0 per cent. of all infants born.
2·0 per cent. of all infants born alive.

Details of 12 *Stillbirths.*

No. of Infants.	Method of Delivery.	Causation.	Mother.		Infant.	
			Primipara.	Multipara.	Full Term.	Premature.
2	Natural forces	Accidental hæmorrhage	—	2	1	1
1	,, ,,	Placenta prævia	—	1	1	—
5	,, ,,	Toxæmia	4	1	—	5
1	,, ,,	Anencephalus	—	1	—	1
1	Forceps delivery	Accidental hæmorrhage	—	1	—	1
2	Cæsarean section	Toxæmia	2	—	1	1
12	—	—	6	6	3	9

Details of 4 *Neo-Natal Deaths.*

No. of Infants.	Method of Delivery.	Maternal Complications.	Cause of Death.	Age.
1	Natural forces	Nil	Prematurity	1 hour.
1	,, ,,	Advanced phthisis	Prematurity	3 hours.
1	,, ,,	Placenta prævia	Prematurity and cerebral hæmorrhage	11½ hours.
1	,, ,,	Toxæmia	Prematurity (one of triplets)	10 days.

Labours in Amnesia.

Chloroform capsules	17
Nembutal	21
Gas and oxygen	1
Evipan	1
	40

Labours under general anæsthetic, 23.

Summary and Comparison.

The numbers of ante-natal attendances and of deliveries have increased during the year.

The maternal mortality rate remains unchanged, but the infant mortality rate has been lowered.

An effort is being made to procure amnesia in the majority of labours, and for this purpose the use of chloroform capsules has been started recently, with satisfactory results. The use of gas and oxygen, which is the most satisfactory anæsthetic in labour, has been limited because it necessitates the presence of an anæsthetist for a long period. Evipan was used in one case only, the result being effective in stopping pains, but also inhibited voluntary effort. Nembutal is rather uncertain in action, but gives good results in some cases.

Pathological and Bio-Chemistry Department.

Blood Investigations.

Blood urea	37	Icterus index	2
Blood sugar	20	Van den Bergh	1
Blood count	90		

Cerebro-Spinal Fluid.

General examination	26

Urine.

Sugar	303	Urea concentration	14

Fæces.

Occult blood	74	Worm ova	5

Gastric Contents.

Fractional test meal	23	Examination for poisons	3

Widal's Liver Function Test	1

Bacteriological Examinations.

Sputum	198
Pus	47
Swabs	85
Urine	416
Body fluids (joint, pleural, &c.)	17

Ear Nose and Throat Department.

Analysis of Operations performed during the Year.

For aural furuncle, foreign body in ear, &c.	10
Paracentesis tympani	12
Mastoidectomy (Schwartze, 33; radical, 7; intracranial complications, 3)	43
Mastoid cauterisation, curettage plastic (8), &c.	17
Submucous resection of septum	2
Antrum puncture and washout	30
On nose and sinuses (various)	20
Removal of tonsils and adenoids by guillotine	245
Removal of tonsils by dissection	99
Adenoidectomy	12
For hæmorrhage from tonsillar fossa	2
Quinsies opened	6
Laryngoscopy (3), Bronchoscopy (2) Tracheotomy (2)	7
Mastoid/aural, examination/dressing under general anæsthesia	42
Total	547

Out-Patient Department.

Number of new patients	1,839
Number of attendances	12,027

Clinic.	New Patients.	Attendances.
Dressings and casualty	1,139	5,353
Child welfare	253	849
Ante-natal clinic	180	945
Massage and electrical	115	2,556
Orthopædic	71	723
Ear, nose and throat	23	217
Medical	11	68
House patients	112	1,316
Totals	1,904	12,027

Number of attendances of men	5,479
Number of attendances of women	3,010
Number of attendances of children, 0–3 years	789
Number of attendances of children, 3–14 years	2,749
Total	12,027

DISEASES FOR WHICH THE 1,839 OUT-PATIENTS WERE PRIMARILY TREATED.

(*In Order of Frequency*).

Violence	662
Diseases of the digestive system	465
Diseases of the nervous system	168
Diseases of the genito-urinary system	114
Pregnancy, puerperium and parturition	78
Diseases of the circulatory system	36
Diseases of the skin	35
Diseases of the respiratory system	31
Tumours and cysts	25
Rheumatism	24
Tuberculosis	9
Malformations	9
Infants and mothers (healthy)	7
Venereal diseases	7
Acute infectious diseases	6
Influenza	5
Mental diseases	3
Parasitic diseases	2
Senile decay	1
Other diseases	128
Undiagnosed	24
Total	1,839

COMPARATIVE STATISTICS.

	1931.	1932.	1933.
Number of discharges	1,208	1,990	2,657
Mortality, per cent.	9·2	7·0	7·6
Patients per occupied bed	17·0	21·0	24·1
Total major operations	350	504	730
Total minor operations	617	1,321	1,396
Total patients investigated in X-ray Department	—	493	1,042
Total number of investigations in X-ray Department	531	849	1,547
Number of confinements	65	160	189
Pathological investigations carried out at the Hospital	149	542	1,362
Out-patients treated	788	1,959	2,550*
Out-patient attendances	1,307	6,113	12,864*

* These figures include casuals.

The Out-patient figures for 1933, excluding casuals, were :—

Number of Out-patients treated	1,839
Number of Out-patient attendances	12,027

INDEX.

PAGE

Almoners, Hospital ... 33
Ante-natal clinic, central consultative ... 57
„ clinics at welfare centres ... 54
Anthrax ... 63
Area ... 1
Births and birth-rates ... 2, 47
Blind, welfare of the ... 34
Central Middlesex County Hospital 16, 23, 156
Cerebro-spinal fever... 62
Chase Farm Schools ... 16, 22
Children and Young Persons Acts ... 57
Cholera ... 63
Continued fever ... 63
Convalescent Home, Edgbury ... 22
Deaths and death-rates ... 5
Dental treatment ... 56
Diphtheria ... 60
District Medical Officers (Public Assistance) vii, 32
„ nursing associations ... 32
Dysentery ... 62
Edgbury Convalescent Home ... 22
Edmonton House ... 16, 21
Encephalitis lethargica ... 62
Enfield House ... 16, 21
Enteric fever... 60
Erysipelas ... 63
Food and drugs, adulteration ... 59
„ inspection and supervision ... 58
Fortescue Villas, Enfield ... 21
Hillingdon County Hospital ... 18, 26, 183
„ Institution ... 18, 27
Hospitals, fever ... 66
„ general ... 14, 96
„ smallpox ... 66
„ staff ... v
„ voluntary ... 33, 35
Infantile mortality ... 7
Infant life protection ... 57
Infectious diseases ... 60
Institutional medical services, Local Government Act, 1929 ... 14
Isolation hospitals ... 66
Malaria ... 63
Malta fever ... 63
Maternal deaths, investigation of ... 57
„ mortality ... 9, 48
Maternity and child welfare scheme ... 53
„ Departments, General Hospitals and Institutions ... 29

PAGE

Measles ... 62
Medical out-relief (Poor Law) ... 32
Mental defectives ... 33
Midwives Acts, administration of ... 46
Midwives, provision of ... 33, 57
Milk, condensed ... 59
„ dried ... 59
„ production ... 58
Natural and social conditions ... 1
North Middlesex County Hospital ... 15, 20, 97
Nursing homes ... 51
Ophthalmia neonatorum ... 50, 56, 62
Ophthalmic treatment ... 56
Out-relief, medical, Poor Law ... 32
Plague ... 63
Pneumonia ... 62
Polioencephalitis, acute ... 62
Poliomyelitis, acute ... 62
Population ... 1
Public Vaccinators ... vii
Puerperal fever and puerperal pyrexia ... 48, 57, 62
Redhill County Hospital ... 17, 24, 126
„ Institution ... 18, 25
„ Men's Home ... 18
Relapsing fever ... 63
Sanatorium, County, Clare Hall ... vi, 78, 82
„ „ Harefield ... vi, 78, 79
Scarlet fever ... 60
Smallpox ... 60
„ hospitals ... 66
Social conditions, natural and ... 1
Staff ... iv
Staines Institution ... 19, 27
Statistics, summary of ... ix
Still-births ... 5, 48
Tuberculosis ... 72
„ dispensaries ... 77
„ institutions ... 78
„ scheme ... 77
Typhoid fever ... 60
Typhus ... 63
Vaccination ... 63
Vaccinators, Public ... vii
Venereal diseases ... 93
Veterinary inspection of dairy herds ... 59
Voluntary hospitals ... 33, 35
Warkworth House, Isleworth ... 19, 26
Welfare centres, list of ... 55
West Middlesex County Hospital ... 18, 25, 172

Administrative County of Middlesex.

ANNUAL REPORT

OF THE

COUNTY MEDICAL OFFICER OF HEALTH

FOR THE

YEAR 1933.

LONDON:
HARRISON AND SONS, LTD., ST. MARTIN'S LANE, W.C.2.
Printers in Ordinary to His Majesty.

1934.